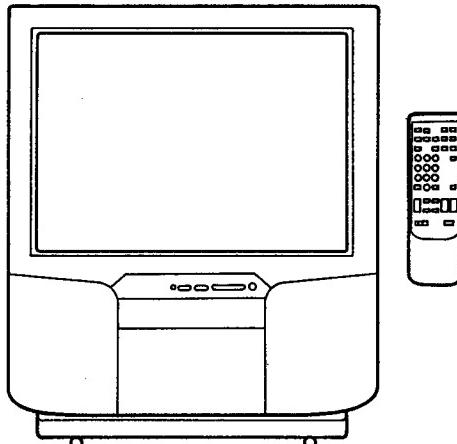


# KP-41EXR96

## RM-Y112A

## SERVICE MANUAL



*US Model*

*Chassis No. SCC-F19H-A*

*Canadian Model*

*Chassis No. SCC-F23C-A*

## AP CHASSIS

### MODELS OF THE SAME SERIES

KP-41EXR96	KPR-46EXR15/53EXR15
KPR-41EXR95	
KPR-46XBR15/53XBR15	

### SPECIFICATIONS

Structure	Screen and projector, rear projection type	Input jacks	VIDEO IN 1
Projection system	3 picture tubes, 3 lenses, horizontal in-line system	S VIDEO IN (4-pin mini DIN)	
Picture tube	7 inch high-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system	Y : 1 Vp-p, 75-ohms unbalanced, sync negative	
Projection lenses	High performance, larger-diameter hybrid lens F 1.0	C : 0.286 Vp-p (Burst signal) 75-ohms	
Screen material	Plastic lenticular, Plastic fresnel	Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative	
Projected picture size	41 inches (measured diagonally)	Audio (phono jacks) :	
Screen brightness	2,000 cd/m <sup>2</sup>	500 mVrms (100% modulation)	
Television system	American TV standards	Impedance : 47 kilo-ohms	
Channel coverage	VHF: 2-13 UHF: 14-69 CABLE TV: 1-125	VIDEO IN 2 and 3	
Antenna	75 ohm external antenna terminal for VHF/UHF	Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative	
		Audio (phono jacks) :	
		500 mVrms (100% modulation)	
		Impedance : 47 kilo-ohms	

- Continued on next page -

**COLOR REAR VIDEO PROJECTOR**  
**SONY®**



MICROFILM

Output jacks	<b>MONITOR OUT</b> S VIDEO MONITOR OUT (4-pin mini DIN) Y : 1 Vp-p, 75-ohms unbalanced, sync negative Video (phono jacks) : 1Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks) : 500mVrms (100% modulation) Impedance : 10-kilo-ohms <b>AUDIO (VAR) OUT</b> (phono jacks) More than 900mVrms (100% modulation) at the maximum volume setting (variable) Impedance : 5kilo-ohms <b>AUDIO OUT</b> (phono jacks) 900mVrms (100% modulation) Impedance : 5kilo-ohms	<b>Speaker output</b> 12W×2 <b>CENTER SPEAKER input</b> 16Ω NORM. 30W MAX 50W <b>Power requirements</b> 120 V AC, 60 Hz <b>Power consumption</b> 310W (max) 7W (standby mode) <b>Dimensions (w/h/d)</b> 930×1,185×505 mm (365/8×463/4×20 inches) <b>Weight</b> 72 kg (138 lb 12 oz) <b>Supplied accessories</b> Remote Commander RM-Y112A (1) with 2 size AA (R6) EVEREADY batteries
Speaker	Two-way coaxial speaker system Woofer 130 mm (5inches) diameter Tweeter 35 mm (1.4inches) diameter	<b>Optional accessories</b> U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V VCR Tray SU-PJT1

Design and specifications are subject to change without notice.

**(CAUTION)**

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

**WARNING!!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

**(ATTENTION)**

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTICUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINT SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

**ATTENTION!!**

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.

LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!**

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MAPQUE  $\Delta$  SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES remplacer que par des composants SONY dont le numero de piece est indiqué dans le présent manuel ou dans des suppléments publiés par SONY. LES REGLAGES DE CIRCUIT dont l'importance est critique pour la sécurité du fonctionnement sont identifiées dans le présent manuel. suivre ces procédures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement est suspecté.

## SAFETY CHECK-OUT

(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a coldwater pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

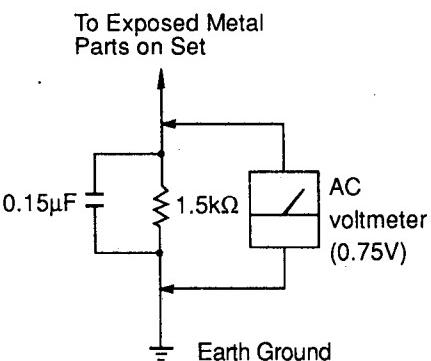


Fig. A. Using an AC voltmeter to check AC leakage.

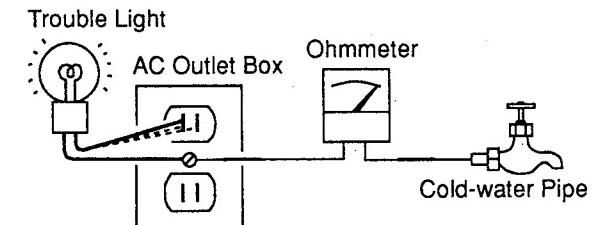


Fig. B. Checking for earth ground.

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>	
<b>1. GENERAL</b>						
	Unpacking and Viewing Area .....	5				
	Locating Controls and Connectors .....	5				
	Using the On-Screen Menus .....	8				
	Adjusting Color Registration (CONVERGENCE) .....	10				
	Setting CABLE ON or OFF .....	11				
	Presetting TV Channels .....	12				
	Watching TV Programs .....	15				
	Using Closed Caption .....	16				
	Using Convenient Features .....	16				
	Selecting a Picture and Sound Mode .....	17				
	Watching Two Pictures at Once (PIP) .....	18				
	Adjusting the Projection TV .....	20				
	Customizing the Screen Display .....	24				
	Using Timer-Activated Functions .....	26				
	Setting FAVORITE CHANNEL .....	30				
	Using the Pre-Programmed Remote Commander .....	31				
	Trouble Shooting .....	34				
<b>2. DISASSEMBLY</b>						
2-1.	H2 Board Removal .....	35				
2-2.	D Board Removal .....	35				
2-3.	H1 Board Removal .....	36				
2-4.	Reflection Mirror Removal .....	36				
2-5.	Back Cover Removal .....	37				
2-6.	Main Chassis Assy Removal .....	37				
2-7.	Service Position .....	37				
2-8.	Sub Connector Panel Removal .....	39				
2-9.	Main Connector Panel Removal .....	40				
2-10.	U Bracket Removal .....	40				
2-11.	V Board Removal .....	41				
2-12.	N Braket Removal .....	41				
2-13.	G Board Removal .....	41				
2-14.	Mirror Cover Removal .....	42				
2-15.	Chassis Assy Removal .....	42				
2-16.	Picture Tube Removal .....	43				
2-17.	High-Voltage Cable Installation and Removal .....	43				
2-18.	Connector Cable .....	44				
<b>3. SETUP ADJUSTMENTS</b>						
3-1.	Focus Lens Adjustments .....	45				
3-2.	Deflection Yoke Position Adjustments .....	45				
3-3.	2-Pole Magnet Adjustment .....	46				
3-4.	4-Pole Magnet Adjustment .....	46				
3-5.	De-Focus Adjustment (Blue) .....	46				
3-6.	Green Picture Adjustments .....	46				
3-7.	Green and Red Registration Adjustments .....	49				
3-8.	Green and Blue Registration Adjustments .....	50				
3-9.	Registration Check .....	51				
3-10.	White Balance Adjustments .....	51				
<b>4. SAFETY RELATED ADJUSTMENTS</b>						
4-1.	Safety Related Adjustments .....	53				
<b>5. CIRCUIT ADJUSTMENTS</b>						
5-1.	Electrical Adjustment by Remote Commander .....	57				
5-2.	A Board Adjustments .....	59				
5-3.	DS Board Adjustments .....	62				
5-4.	P1 Board Adjustments .....	62				
<b>6. DIAGRAMS</b>						
6-1.	Block Diagram (1) .....	64				
6-2.	Block Diagram (2) .....	67				
6-3.	Block Diagram (3) .....	71				
6-4.	Frame Schematic Diagram .....	75				
6-5.	Circuit Boards Location .....	78				
6-6.	Schematic Diagrams and Printed Wiring Boards .....	78				
	• A Board .....	80				
	• U Board .....	87				
	• UT Board .....	90				
	• D Board .....	92				
	• G Board .....	101				
	• H1 Board .....	102				
	• H2 Board .....	103				
	• DS Board .....	103				
	• CB Board .....	104				
	• V Board .....	104				
	• CG Board .....	105				
	• ZB Board .....	105				
	• CR Board .....	106				
	• ZG Board .....	106				
	• ZR Board .....	106				
	• S Board .....	111				
	• N Board .....	112				
	• X2 Board .....	116				
	• M Board .....	121				
	• E1 Board .....	123				
	• E2 Board .....	127				
	• Y2 Board .....	129				
	• P1 Board .....	135				
6-7.	Semiconductors .....	137				
<b>7. EXPLODED VIEWS</b>						
7-1.	Screen Frame and Control Panel .....	139				
7-2.	Cabinet and Back Cover .....	140				
7-3.	Chassis .....	141				
7-4.	Picture Tube .....	142				
<b>8. ELECTRICAL PARTS LIST</b> .....						143

## SECTION 1 GENERAL

### Chapter 1: Setting Up Unpacking and Viewing Area

**1** Carefully follow the instructions on the outside of the packing carton to unpack the projection TV.

**Notes**  
• The supplied accessories are packed in the bottom of the carton.  
Be sure not to throw them away.

• Keep the original carton and packing materials to safely transport the projection TV in the future.

**2** Check to make sure that the following is included:

Universal Remote Commander  
RM-Y12A(1)  
with 2 size AA (H6) EVEREADY batteries

If the Remote Commander is missing, contact your dealer.

**3** Place the projection TV in a cool, dry place where the ventilation openings at the sides are not blocked.

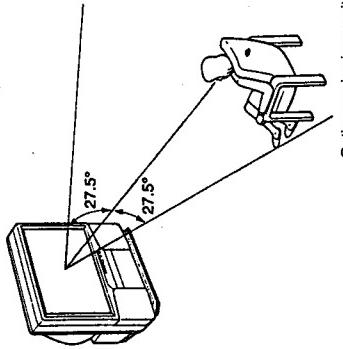
**4** Plug the projection TV power cord into an AC 120 volt power outlet.

For further precautions, see p. 2.



Optimum viewing position

Vertical viewing area

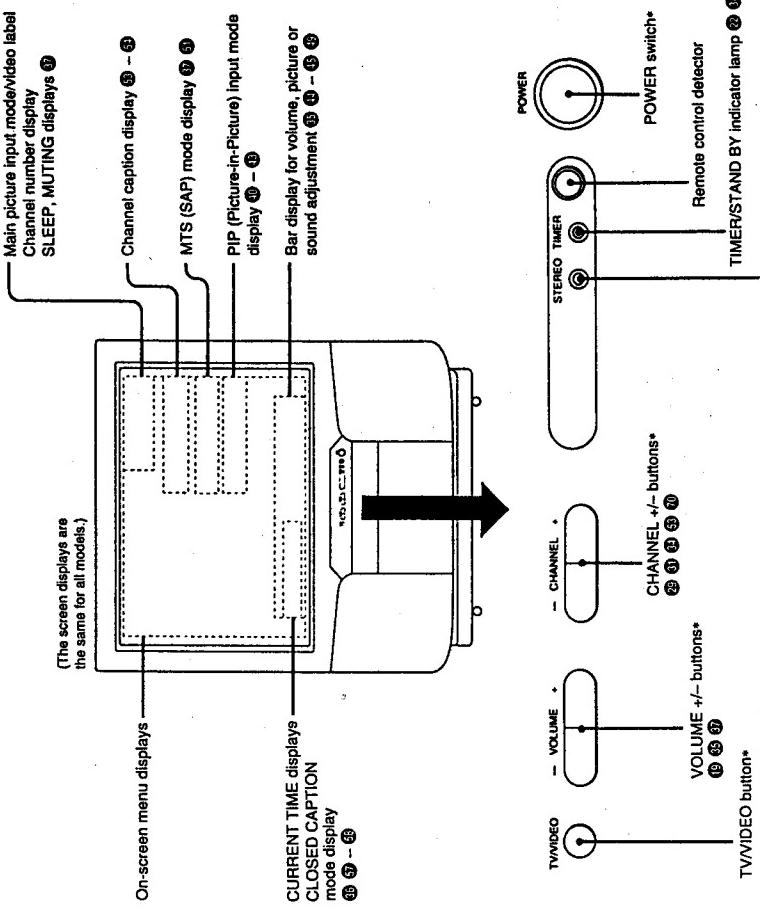


Optimum viewing position

### Locating Controls and Connectors

For details, see the pages indicated by the numbered black circles.

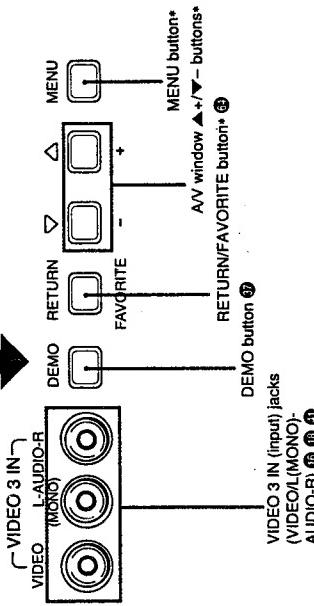
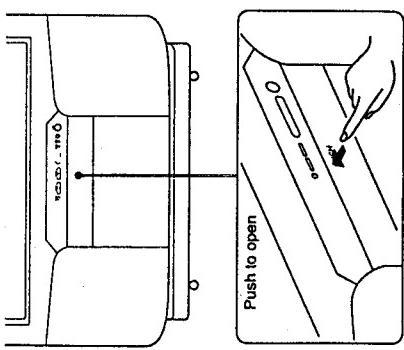
Front



\* Buttons with the same function are also located on the Remote Commander (p. 10).

## Locating Controls and Connectors

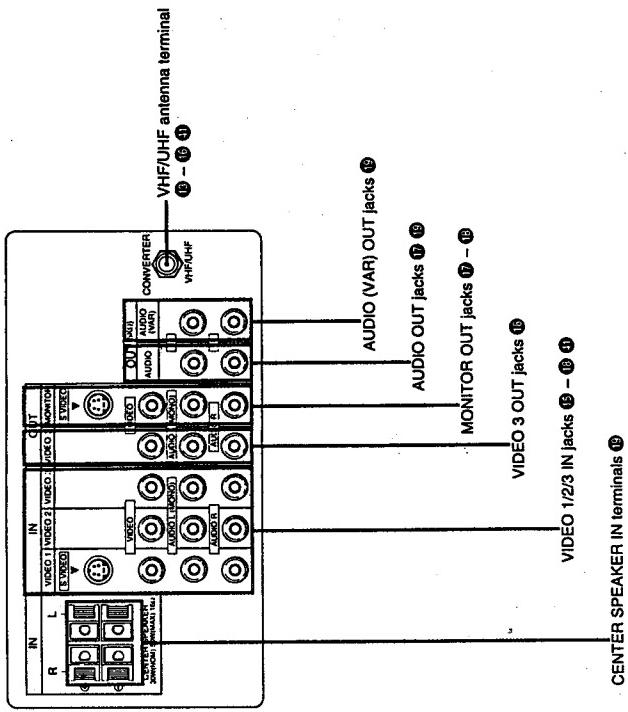
Front Inner panel



\* Buttons with the same function are also located on the Remote Commander (p. 10).

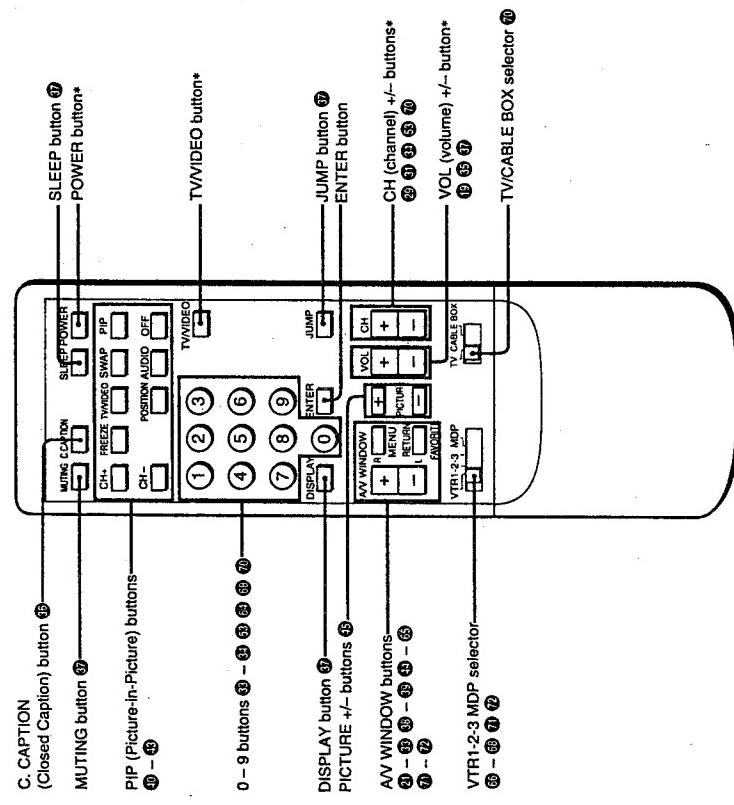
**Note**  
The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

Rear

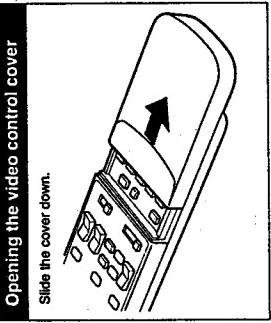


## Locating Controls and Connectors

Remote Commander RM-Y112A (with the video control cover closed)



Remote Commander (with the video control cover open)



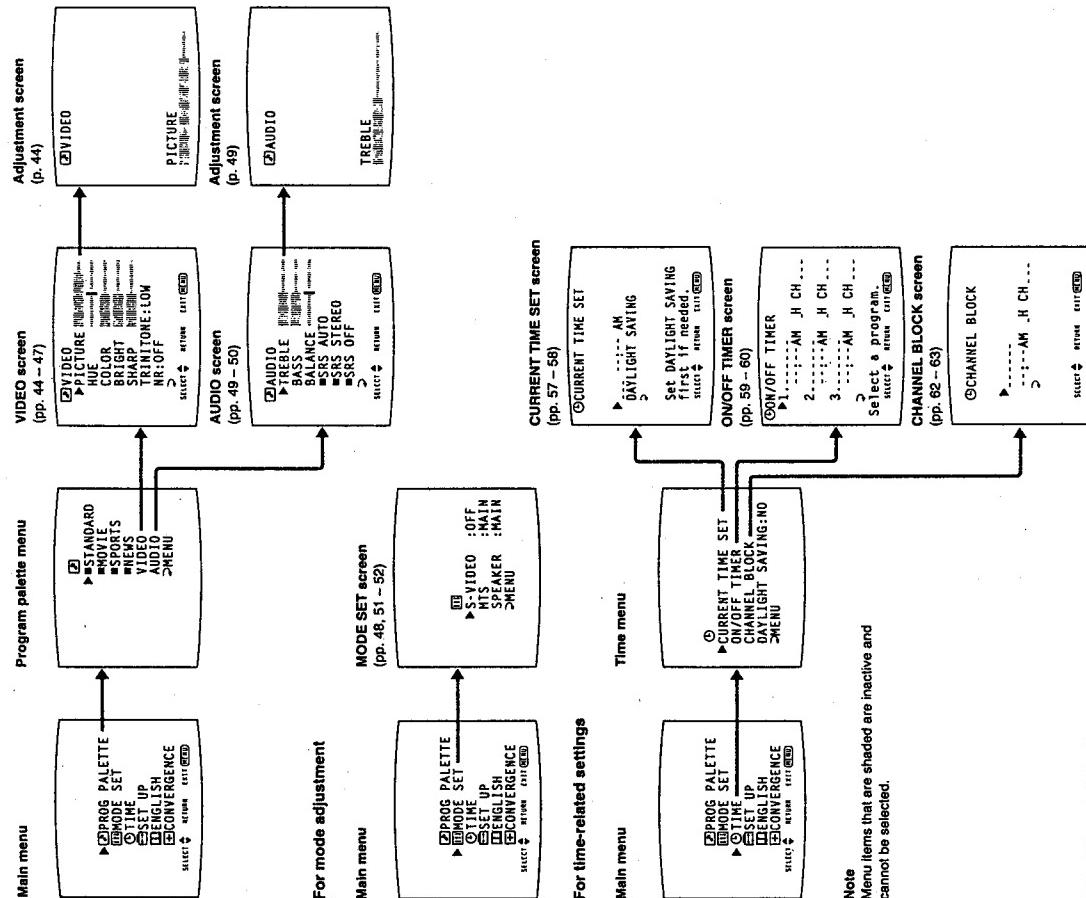
\* Buttons with the same function are also located on the projection TV (p. 7).

**Note**  
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 70). Set the selector to TV to control the projection TV with the Remote Commander.

## Using the On-Screen Menus

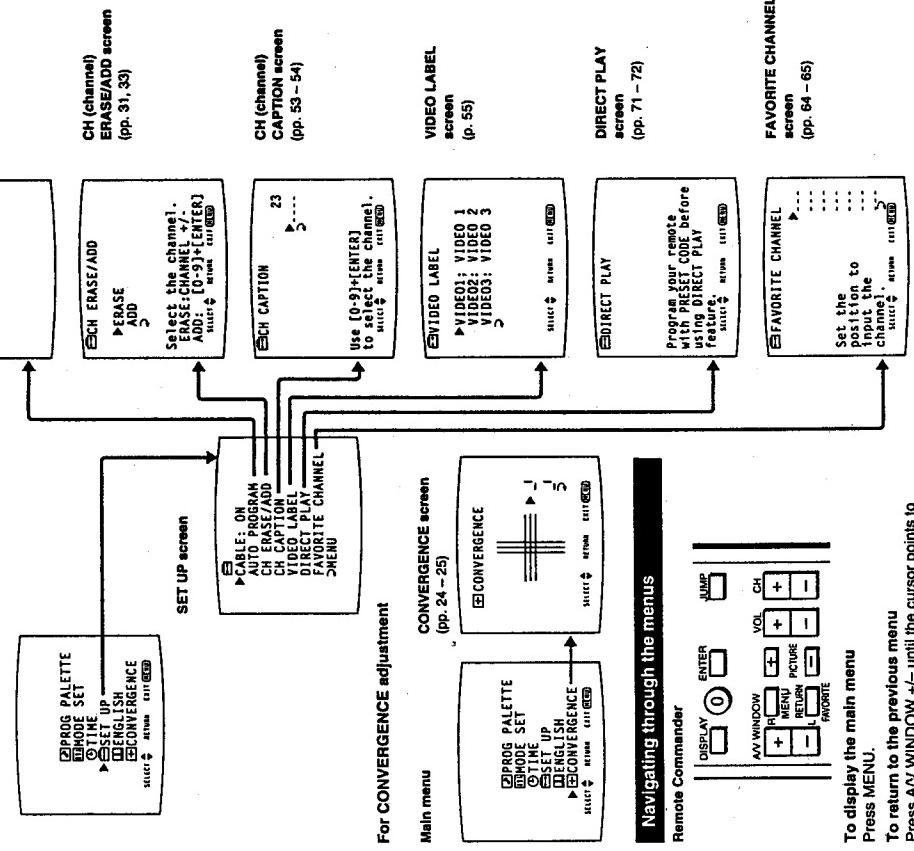
The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

For picture and sound quality adjustment



For presenting and other functions

Main Menu

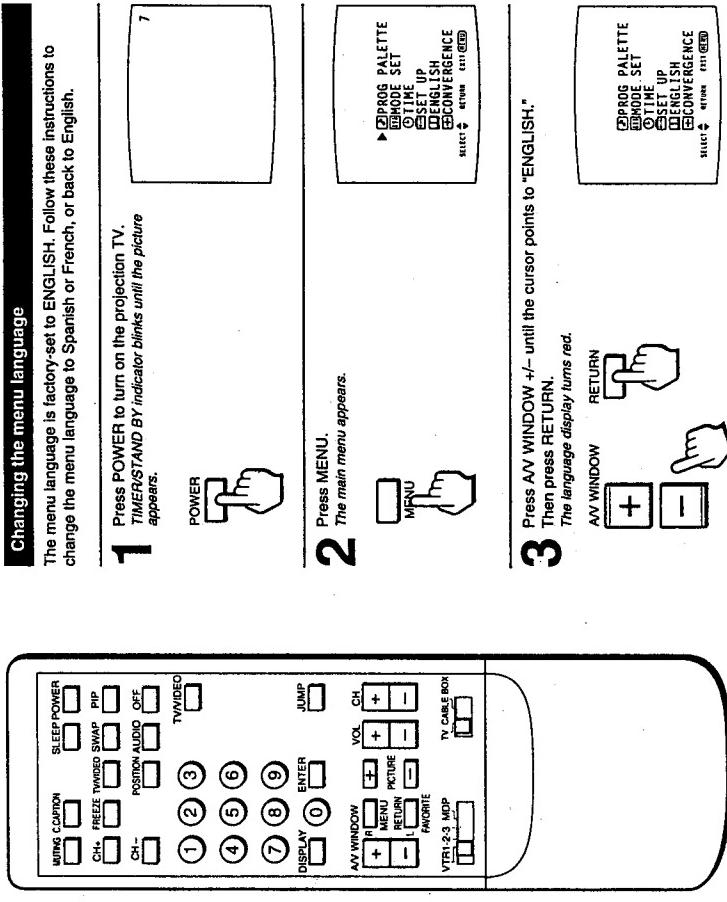


**To return to the normal screen**  
Repeat the above, until you reach the main menu.

Press MENU.

**Note** The menus disappear automatically, if you do not press a button within 90 seconds.

## Using the On-Screen Menus



**5** Press RETURN.  
The language is selected.

**Changing the menu language**  
The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

**1** PRESS POWER to turn on the projector. TV TIMER/STAND BY indicator blinks until the picture appears.



**2** Press MENU.

The main menu appears.

**3** Press AV WINDOW +/- until the cursor points to "ENGLISH".

Then press RETURN.

The language display turns red.

A hand icon points to the AV WINDOW +/- buttons.

**4** Press RETURN.

Each time you press AV WINDOW +/-, the "ESPAÑOL", "FRANCÃAIS" and "ENGLISH" menus appear.

A hand icon points to the RETURN button.

**5** Press MENU.

The main menu appears.

**6** Press RETURN.

The menu language has been changed.

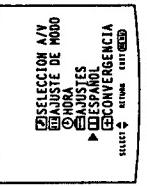
A hand icon points to the RETURN button.

**7** Press POWER again to turn off the projector.

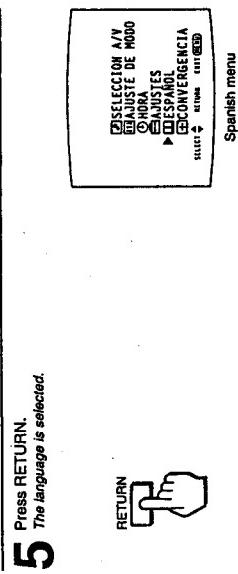
A hand icon points to the POWER button.

To return to the normal screen.  
Press MENU.

- Note concerning menus**
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
  - The menus disappear automatically if you do not press a button within 90 seconds.



Spanish menu



**4** Press AV WINDOW +/- to select the language.  
"ENGLISH" menu appears.

A hand icon points to the AV WINDOW +/- buttons.

**5** Press MENU.

The main menu appears.

**6** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**7** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**8** Press MENU.

The main menu appears.

**9** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**10** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**11** Press MENU.

The main menu appears.

**12** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**13** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**14** Press MENU.

The main menu appears.

**15** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**16** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**17** Press MENU.

The main menu appears.

**18** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**19** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**20** Press MENU.

The main menu appears.

**21** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**22** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**23** Press MENU.

The main menu appears.

**24** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**25** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**26** Press MENU.

The main menu appears.

**27** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**28** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**29** Press MENU.

The main menu appears.

**30** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**31** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**32** Press MENU.

The main menu appears.

**33** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**34** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**35** Press MENU.

The main menu appears.

**36** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**37** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**38** Press MENU.

The main menu appears.

**39** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**40** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**41** Press MENU.

The main menu appears.

**42** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**43** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**44** Press MENU.

The main menu appears.

**45** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**46** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**47** Press MENU.

The main menu appears.

**48** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**49** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**50** Press MENU.

The main menu appears.

**51** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**52** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**53** Press MENU.

The main menu appears.

**54** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**55** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**56** Press MENU.

The main menu appears.

**57** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**58** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**59** Press MENU.

The main menu appears.

**60** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**61** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**62** Press MENU.

The main menu appears.

**63** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**64** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**65** Press MENU.

The main menu appears.

**66** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**67** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**68** Press MENU.

The main menu appears.

**69** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**70** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**71** Press MENU.

The main menu appears.

**72** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**73** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**74** Press MENU.

The main menu appears.

**75** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**76** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**77** Press MENU.

The main menu appears.

**78** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**79** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**80** Press MENU.

The main menu appears.

**81** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**82** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**83** Press MENU.

The main menu appears.

**84** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**85** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**86** Press MENU.

The main menu appears.

**87** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**88** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**89** Press MENU.

The main menu appears.

**90** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**91** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**92** Press MENU.

The main menu appears.

**93** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**94** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**95** Press MENU.

The main menu appears.

**96** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**97** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**98** Press MENU.

The main menu appears.

**99** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

**100** Press POWER again to turn off the projector.

A hand icon points to the POWER button.

**101** Press MENU.

The main menu appears.

**102** Press RETURN.

The menu language has been changed.

A hand icon points to the RETURN button.

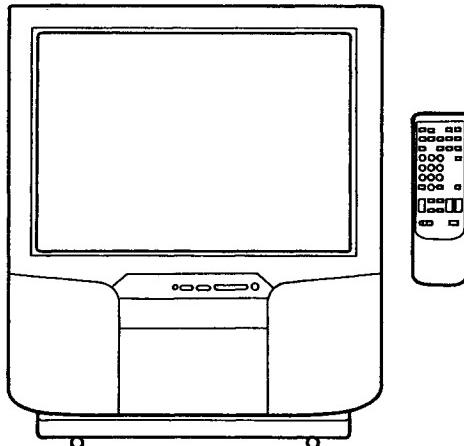
**103** Press POWER again to turn off the projector.

A hand icon points to the POWER button.</p

# KP-41EXR96

RM-Y112A

## SERVICE MANUAL



**US Model**

Chassis No. SCC-F19H-A

**Canadian Model**

Chassis No. SCC-F23C-A

**AP CHASSIS**

MODELS OF THE SAME SERIES	
KP-41EXR96	KPR-46EXR15/53EXR15
KPR-41EXR95	
KPR-46XBR15/53XBR15	

### SPECIFICATIONS

Structure	Screen and projector, rear projection type	Input jacks	VIDEO IN 1
Projection system	3 picture tubes, 3 lenses, horizontal in-line system	S VIDEO IN (4-pin mini DIN)	Y : 1 Vp-p, 75-ohms unbalanced, sync negative
Picture tube	7 inch high-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system	C : 0.286 Vp-p (Burst signal) 75-ohms	Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
Projection lenses	High performance, larger-diameter hybrid lens F 1.0	Audio (phono jacks) :	500 mVrms (100% modulation) Impedance : 47 kilo-ohms
Screen material	Plastic lenticular, Plastic fresnel	VIDEO IN 2 and 3	Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
Projected picture size	41 inches (measured diagonally)	Audio (phono jacks) :	500 mVrms (100% modulation) Impedance : 47 kilo-ohms
Screen brightness	2,000 cd/m <sup>2</sup>		
Television system	American TV standards		
Channel coverage	VHF: 2-13 UHF: 14-69 CABLE TV: 1-125		
Antenna	75 ohm external antenna terminal for VHF/UHF		

- Continued on next page -

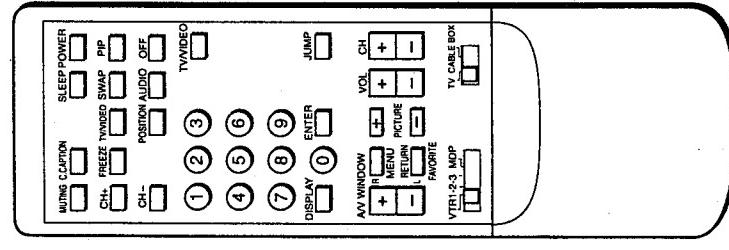


996493801



**COLOR REAR VIDEO PROJECTOR**  
**SONY®**

## Adjusting Color Registration (CONVERGENCE)



In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

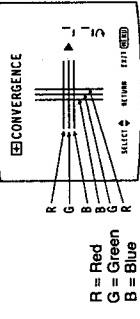
**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to "CONVERGENCE".



**3** Press RETURN.  
The CONVERGENCE screen and the colored adjustment lines appear.



**4** Press A/V WINDOW +/- until the cursor points to the symbol representing the line you want to adjust (see the key below).  
A/V WINDOW  
[+] [ - ]

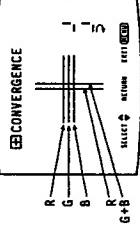
Adjustment line symbols key  
| (red vertical: left/right adjustment)  
— (red horizontal: up/down adjustment)  
| (blue vertical: left/right adjustment)  
— (blue horizontal: up/down adjustment)

**5** Press RETURN.  
The adjustment line is selected.



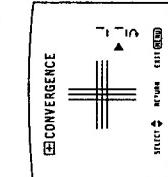
To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to " MENU ".  
Then press RETURN.  
  
To return to the main menu  
Repeat the above, until you reach the main menu.  
  
To return to the normal screen.  
Press MENU.

**6** Then press RETURN.  
A/V WINDOW  
[+] [ - ]



To move up	Press A/V WINDOW +.
To move right	Press A/V WINDOW -.
To move down	Press A/V WINDOW -.
To move left	Press A/V WINDOW +.

**7** Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.



## Setting CABLE ON or OFF

If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

Note  
If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected.

Press TV/VIDEO to change to TV mode.

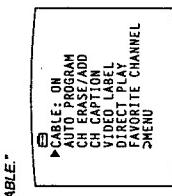
**1** Press MENU.  
The main menu appears.



**2** Press AV WINDOW +/- until the cursor points to "SET UP".



**3** Press RETURN.  
The setup menu appears, and the cursor points to "CABLE".



**4** Press RETURN again.  
The mode display turns red.



**5** Press AV WINDOW +/- to select "ON" or "OFF".

Cable TV channel chart.  
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	Corresponding CABLE channel
1	A-B
5	A-7
6	A-5
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
•	•
•	•
•	•
93	W-57
94	W-58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W-59
101	W-60
102	W-61
•	•
•	•
•	•
123	W-82
124	W-83
125	W-84

Check with your local cable TV company for more complete information on the available channels.

\* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

## Presetting TV Channels

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/-.  
(You can select VHF channels 2 - 13 without presetting.)

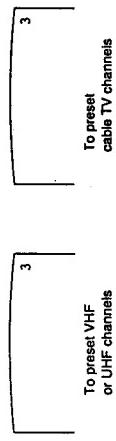
### Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

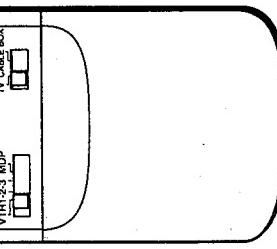
#### Notes

- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

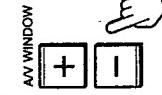
**1** Set the cable connection on or off (pp. 26 - 27) to select the type of channel you want to preset, VHF/UHF or cable TV.



**2** Press MENU.  
The main menu appears.



**3** Press AV WINDOW +/- until the cursor points to "SET UP".



- 4** Press RETURN.  
The set up menu appears.
- RETURN
- 5** Press AV WINDOW +/- until the cursor points to "AUTO PROGRAM".
- AV WINDOW
- 6** Press RETURN.
- RETURN
- 7** Press CH +/- to check or view the preset channels.
- CH
+
-

**Receivable channels for this projection**

**TV**

VHF: 2 - 13  
UHF: 14 - 89  
Cable: 1 - 125

To select TV channels without presetting  
Press the 0 - 9 buttons and ENTER.

To return to the previous menu  
Press AV WINDOW +/- until the cursor points to "MENU".  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory.

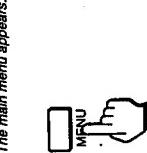
When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

## Presetting TV Channels

### Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/-, the channel(s) are skipped.

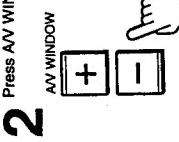
**1** Press MENU



The main menu appears.



**2** Press AV WINDOW +/- until the cursor points to "SET UP".



AV WINDOW



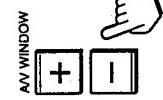
**3** Press RETURN



The set up menu appears.



**4** Press AV WINDOW +/- until the cursor points to "CH ERASE/ADD."



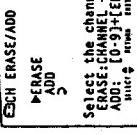
AV WINDOW



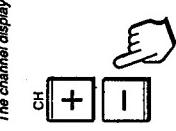
**5** Press RETURN.  
The CH ERASE/ADD screen appears, and the cursor points to "ERASE".



RETURN



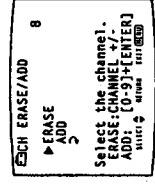
**6** Press CH +/- to select the channel you want to erase.



CH

+
-

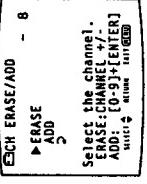
The channel display appears.



**7** Press RETURN.  
A '-' sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.



RETURN



To erase another channel:  
Repeat steps 6 - 7.

To return to the previous menu  
Press AV WINDOW +/- until the cursor points to "► MENU".  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

Note  
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).

## Presetting TV Channels

### Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 30 - 31).

- 1** Press MENU.  
The main menu appears.



- 2** Press AV WINDOW +/- until the cursor points to "SET UP".



- 3** Press RETURN.  
The set up menu appears.



- 4** Press AV WINDOW +/- until the cursor points to "CH ERASE/ADD".



### Erasing TV channels

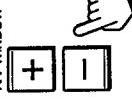
Follow these instructions to erase TV channels from the selection memory.

- 5** Press RETURN.  
The CH ERASE/ADD screen appears.



- To add another channel  
Repeat steps 7 - 8.
- To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.
- To return to the main menu  
Repeat the above, until you reach the main menu.  
Press MENU.

- 6** Press AV WINDOW +/- until the cursor points to "ADD".



Note

If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

- 7** Press 0 - 9 and ENTER to select the channel you want to add.  
The channel display appears.



- 8** Press RETURN.  
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



- To add another channel  
Repeat steps 7 - 8.
- To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.
- To return to the main menu  
Repeat the above, until you reach the main menu.  
Press MENU.

## Chapter 2: Using Basic Features

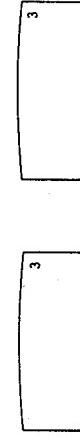
### Watching TV Programs

Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

**1** Press POWER to turn on the projection TV.  
TIMER/STAND BY indicator blinks until the picture appears.



**2** Set the cable connection on or off (pp. 26 - 27) to select the type of channel you want to watch, VHF/UHF or cable TV.



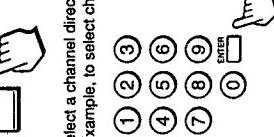
**3** Select a channel in one of the following two ways:

To select the preset channels in numerical sequence, press CH +/-.  
To select a channel directly, press 0 - 9 and then ENTER.

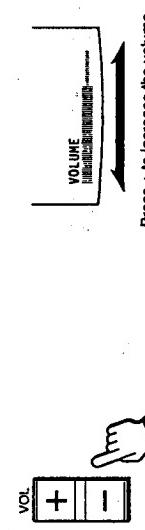
For example, to select channel 10, press 1, 0 and ENTER.

**CH**

**+** **-**



**4** Press VOL +/- to adjust the volume.



Press + to increase the volume.  
Press - to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen

Press TV/VIDEO until a TV channel number appears.

To select channels more easily

Set FAVORITE CHANNEL (pp. 64 - 65).

To turn off the projection TV

Press POWER.

## Selecting a Picture and Sound Mode

This projection TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

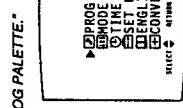
**Example:** Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.

To return to the previous menu  
Press A/V WINDOW  $\leftarrow$  until the cursor points to " > MENU."  
Then press RETURN.

**Selecting standard mode (without using the menus)**

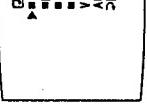
Follow these instructions to select standard mode without using the on-screen menus.

1 Press MENU.



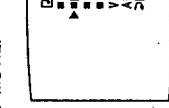
The main menu appears, and the cursor points to "PROG PALETTE".

2 Press RETURN.



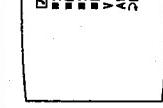
The program palette menu appears.

3 Press A/V WINDOW  $\leftarrow$  until the cursor points to "MOVIE".



A/V WINDOW  $\leftarrow$  until the cursor points to "MOVIE".

4 Press RETURN.



The "MOVIE" display turns green, indicating that MOVIE mode is selected.

To select a different mode  
Repeat steps 3 – 4.

(with video control  
cover open)

To return to the normal screen  
Press MENU.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

**When you select STANDARD mode**  
You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Projection TV", pp. 44 – 52) are cancelled and the original factory settings are restored.

**When you select MOVIE mode**  
You receive a finely detailed picture, and a theatrical audio effect.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

**When you select SPORTS mode**  
You receive a vivid, bright picture, and sound with a sports stadium effect.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

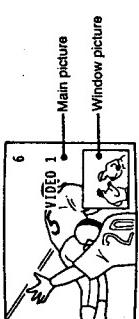
**When you select NEWS mode**  
Picture noise is reduced, and you receive clear voice reproduction.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

## Watching Two Pictures at Once (PIP)

### Chapter 3: Using Advanced Features

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function.

KP-41EX96 is equipped with one-tuner PIP. To watch two TV channels simultaneously, you must first connect a VCR to the projection TV, which will enable you to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 15-19.) Other models are equipped with two-tuner PIP, allowing you to watch two TV channels at once.



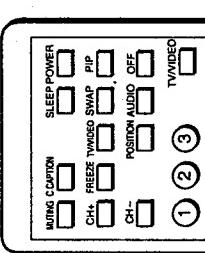
#### Picture-in-Picture special features

When watching the main picture and a window picture, you can:

- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

#### Displaying a window picture

##### Remote Commander



Press PIP to display a window picture.  
Input source mode or TV channel for the main picture



Input source mode or TV channel for the window picture  
1/4 size



A window picture appears in the last mode you watched. Each time you press PIP, a 1/8 or 1/16 size window picture appears alternately.

To turn PIP function off  
Press OFF.

The window picture disappears.

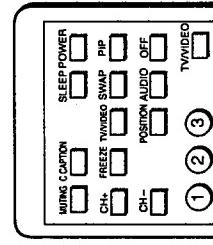
To receive the window picture sound  
Press AUDIO.

The  $\downarrow$  display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound  
Press AUDIO again.

#### Changing the window picture input mode

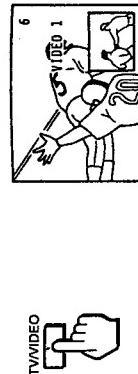
##### Remote Commander



1 Press PIP to display a window picture.



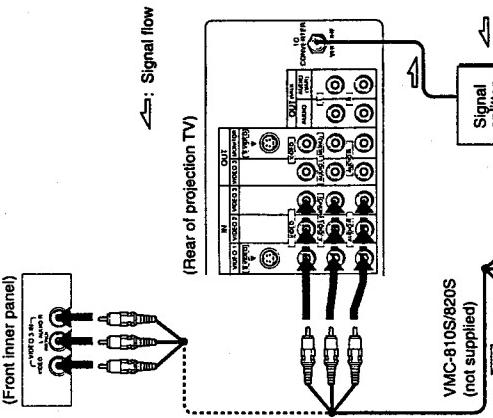
2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode. Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.



To change TV channels in the window picture  
Press CH +/- in the PIP control area.

#### Displaying CATV Input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below. (Front inner panel)



After making the above connections, turn the cable connection on by following the steps on pp. 26-27; then continue with the steps below.

**1-2** Follow steps 1-2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

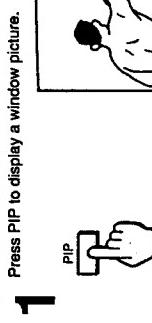
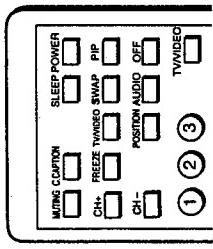
**3** Put your VCR on an inactive channel (channel 3 or 4).  
**4** Change pay cable TV channels with the supplied Remote Commander  
See p. 70.

## Watching Two Pictures at Once (PIP)

### Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

Remote Commander



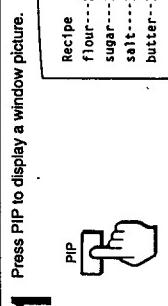
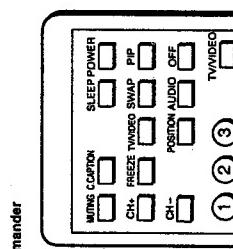
**2** Press POSITION.  
Each time you press POSITION, the window picture moves as illustrated.



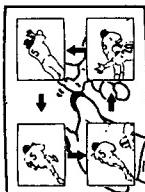
### Displaying a still picture

Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on.

Remote Commander



**2** Press FREEZE.  
The window picture image remains still on the screen.

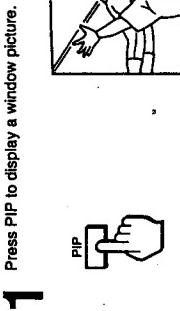
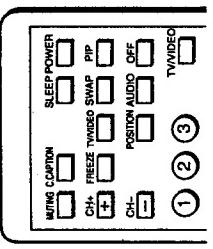


To restore the normal picture  
Press FREEZE again.

### Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

Remote Commander



**2** Press SWAP.  
Each time you press SWAP, the images from the main and window pictures switch places.



Output jacks	MONITOR OUT	Speaker output	12W×2
	S VIDEO MONITOR OUT (4-pin mini DIN)	CENTER SPEAKER input	16Ω NORM. 30W MAX 50W
	Y : 1 Vp-p, 75-ohms unbalanced, sync negative	Power requirements	120 V AC, 60 Hz
	Video (phono jacks) : 1Vp-p, 75-ohms unbalanced, sync negative	Power consumption	310W (max)
	Audio (phono jacks) : 500mVrms (100% modulation)	Dimensions (w/h/d)	7W (standby mode) 930×1,185×505 mm (365/8×463/4×20 inches)
	Impedance : 10 kilo-ohms	Weight	72 kg (138 lb 12 oz)
	AUDIO (VAR) OUT (phono jacks)	Supplied accessories	Remote Commander RM-Y112A (1) with 2 size AA (R6) EVEREADY batteries
	More than 900mVrms (100% modulation) at the maximum volume setting (variable)	Optional accessories	U/V mixer EAC-66 Connecting cable
	Impedance : 5 kilo-ohms		RK-74A VMC-810S/820S YC-15V/30V
	AUDIO OUT (phono jacks)		VCR Tray SU-PJT1
Speaker	Two-way coaxial speaker system		
	Woofer 130 mm (5inches) diameter		
	Tweeter 35 mm (1.4inches) diameter		

Design and specifications are subject to change without notice.

**(CAUTION)**

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

**WARNING!!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

**(ATTENTION)**

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINT SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

**ATTENTION!!**

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.

LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!**

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE  $\Delta$  SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplement publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement est suspecte.

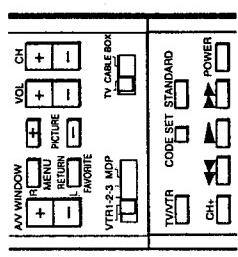
# Adjusting the Projection TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the projection TV, or select a picture and sound mode (pp. 38 - 39).

## Adjusting the picture

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

### Remote Commander (with video control cover open)



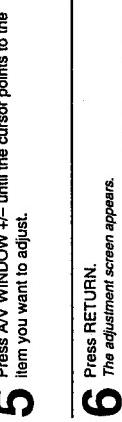
**4** Press RETURN.  
The VIDEO screen appears.



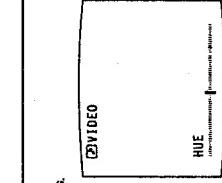
**To adjust other items**  
Repeat steps 5 - 8.

**To restore the factory settings for all the items**  
Select "STANDARD" on the program palette menu, and press RETURN.  
Or, press STANDARD on the Remote Commander.  
All the items, including TRINITONE (p. 46) and NR (p. 47) return to their original factory settings.

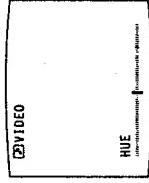
**To adjust picture contrast**  
You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.



**5** Press A/V WINDOW +/- until the cursor points to the item you want to adjust.



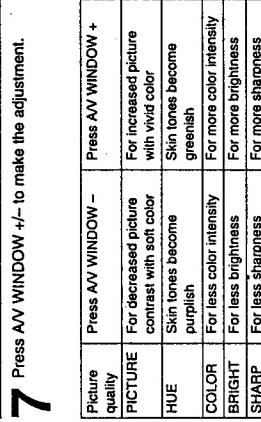
**6** Press RETURN.  
The adjustment screen appears.



**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU.

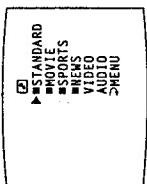


**7** Press A/V WINDOW +/- to make the adjustment.



**1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

**2** Press RETURN.  
The program palette menu appears.



**3** Press A/V WINDOW +/- until the cursor points to "VIDEO."



**8** Press RETURN.  
The adjustment is complete, and the VIDEO screen automatically reappears.



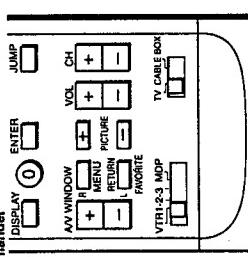
## Adjusting the Projection TV

### Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

**Note**  
If the projection TV is in TV, VIDEO 2 or VIDEO 3 mode, the "S-VIDEO" display is shaded and cannot be selected. Press TV/VIDEO on the projection TV or on the Remote Commander to change to VIDEO 1 mode.

#### Remote Commander



**4** Press RETURN.  
The mode display turns red.

**5** Press AV WINDOW +/- to select "ON" or "OFF".

**6** Press RETURN.  
The setting is complete.

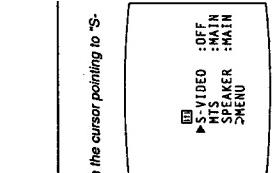
To return to the previous menu  
Press AV WINDOW +/- until the cursor points to  
"► MENU".  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
Press MENU.

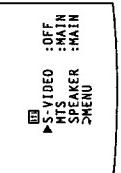
**1** Press MENU.  
The main menu appears.



**2** Press AV WINDOW +/- until the cursor points to  
"MODE SET".



**3** Press RETURN.  
The mode set menu appears, with the cursor pointing to "S-VIDEO".



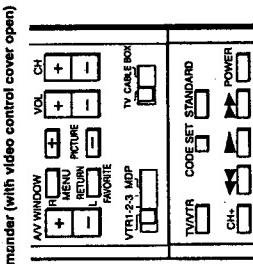
**4** Press AV WINDOW +/- until the cursor points to "S-VIDEO".



**5** Press AV WINDOW +/- until the cursor points to the item you want to adjust.

### Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.



**6** Press RETURN.  
The adjustment screen appears.

**7** Press AV WINDOW +/- to make the adjustment.

Sound quality	Press AV WINDOW +	Press AV WINDOW -
TREBLE	To increase the treble response	To decrease the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

**8** Press RETURN.  
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items  
Repeat steps 5 – 9.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.  
All the items, including SRS mode (p. 59) return to their original factory settings.

To return to the previous menu  
Press AV WINDOW +/- until the cursor points to  
"► MENU".  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
Press MENU.



To return to the normal screen  
Press MENU.



## Adjusting the Projection TV

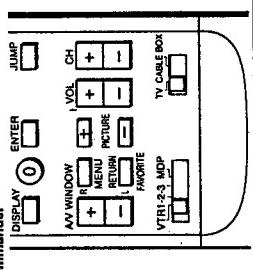
## Customizing the Screen Display



### Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

#### Remote Commander



- 1** Press MENU.  
The main menu appears.



- 2** Press AV WINDOW +/- until the cursor points to "MODE SET".



- 3** Press RETURN.  
The mode set menu appears.



- 4** Press AV WINDOW +/- until the cursor points to "SPEAKER."

### Press RETURN.

The mode display turns red.

- 6** "CENTER."  
Press AV WINDOW +/- to select "MAIN" or

- 7** Press RETURN.  
The setting is complete.

To return to the previous menu  
Press AV WINDOW +/- until the cursor points to  
"MENU."  
Then press RETURN.

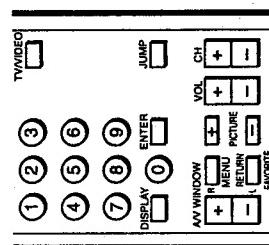
To return to the main menu  
Repeat the above, until you reach the main menu.  
To return to the normal screen  
Press MENU.

### Setting channel captions — CH CAPTION

Follow these instructions to caption each channel number with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

#### Remote Commander



- 1** Press MENU.  
The main menu appears.



- 2** Press AV WINDOW +/- to select "SET UP".



- 3** Press RETURN.  
The set up menu appears.



- 4** Press AV WINDOW +/- to "CH CAPTION".



### Press RETURN.

The CH CAPTION screen appears.

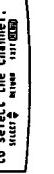
- 5** Press RETURN.  
The CH CAPTION screen appears.



- 6** Press CH +/-, or press 1, 5, and ENTER to set channel 15.



- 7** Press RETURN.  
The first caption space turns red.



- 8** Press AV WINDOW +/- to select "N."  
Each time you press AV WINDOW +/-, "N", "A", "Z", "G", "V", and " " (blank space) appear in sequence.



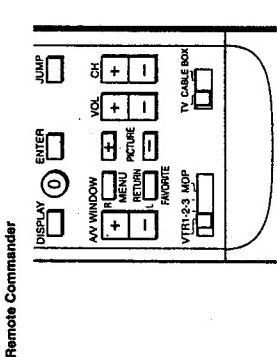
- 9** Press RETURN.  
The second caption space turns red.



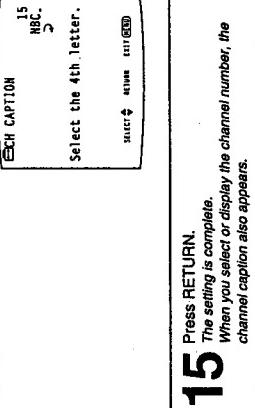
(Continued)

## Customizing the Screen Display

(Cont'd. from previous page)

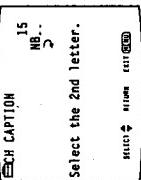


**14** Press A/V WINDOW +/- to select a blank space.



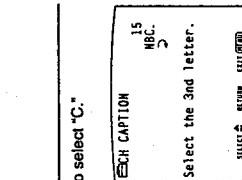
**15** Press RETURN.  
The setting is complete.  
When you select or display the channel number, the channel caption also appears.

**10** Press A/V WINDOW +/- to select "B."



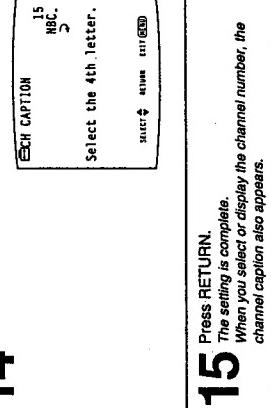
**11** Press RETURN.  
The third caption space turns red.

**12** Press A/V WINDOW +/- to select "C."



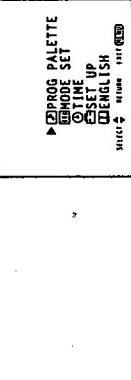
**13** Press RETURN.  
The fourth caption space turns red.

**14** Press A/V WINDOW +/- to select a blank space.



**15** Press RETURN.  
The setting is complete.  
When you select or display the channel number, the channel caption also appears.

**1** Press MENU.  
The main menu appears.



To caption more channels  
Repeat steps 6 - 15.  
To erase unnecessary captions  
Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.  
The caption for that channel is erased.

**2** Press A/V WINDOW +/- until the cursor points to "SET UP."  
Then press RETURN.

**3** Press A/V WINDOW +/- until the cursor points to "SET UP."  
Then press RETURN.

**4** Press A/V WINDOW +/- until the cursor points to "VIDEO LABEL."

**5** Press RETURN.  
Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

**6** Example: Label VIDEO 1 IN as "VHS."  
Press A/V WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1".)

**7** Press RETURN.  
The label display turns red.

**8** Press A/V WINDOW +/- to select "VHS."



**9** Press RETURN.  
The setting is complete.  
When you select or display the video mode, the video label appears.

**10** Press A/V WINDOW +/- until the cursor points to "SET UP."  
Then press RETURN.

**11** Press A/V WINDOW +/- until the cursor points to "SET UP."  
Then press RETURN.

**12** Press A/V WINDOW +/- to select "C."

**13** Press RETURN.  
The fourth caption space turns red.

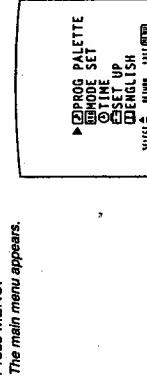
## Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."



**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**3** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**4** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**5** Press RETURN.  
The label display turns red.

**6** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**7** Press RETURN.  
The label display turns red.

**8** Press A/V WINDOW +/- to select "VIDEO 1."

**9** Press RETURN.  
The setting is complete.  
When you select or display the video mode, the video label appears.

**10** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**11** Press RETURN.  
The setting is complete.  
When you select or display the video mode, the video label appears.

**12** Press A/V WINDOW +/- until the cursor points to "VIDEO 1".

**13** Press RETURN.  
The fourth caption space turns red.

# Using Timer-Activated Functions

## Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

**When setting DAYLIGHT SAVING:**

- After the first Sunday in April (spring daylight savings), set to "NO".

Then, on the last Sunday in October (fall daylight savings), set to "YES".

- All the time-related settings automatically move one hour back.

After the last Sunday in October (fall daylight savings)

- Set to "NO" before setting the current time.

Then, on the first Sunday in April (spring daylight savings), set to "YES".

- All the time-related settings automatically move one hour ahead.

**3** Press RETURN.  
The time menu appears.



**4** Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

**5** Press RETURN.  
The mode display turns red.

**6** Press A/V WINDOW +/- to select "YES" or "NO."

**7** Press RETURN.  
The setting is complete.

Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO".

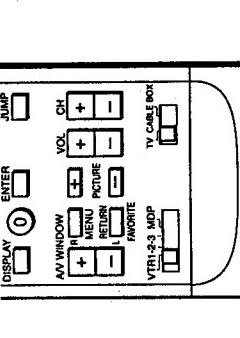
- To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.
- To return to the main menu  
Repeat the above, until you reach the main menu.
- To return to the normal screen.  
Press MENU.

## Setting the clock — CURRENT TIME SET

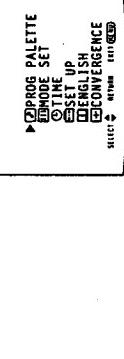
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

Example: Set the time to 3:15 PM, Monday.

**1** Remote Commander



**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to "TIME."

**3** Press RETURN.  
The time menu appears, and the cursor points to "CURRENT TIME SET".

- Press A/V WINDOW +/- to select "MON."  
Each time you press A/V WINDOW +/-, the day changes consecutively.
- Press A/V WINDOW +/- to set the hour.  
Then press RETURN.
- Press A/V WINDOW +/- to set the minute.  
Then press RETURN.
- Press A/V WINDOW +/- to set the second.  
Then press RETURN.

**1** Press MENU.  
The main menu appears.

**2** Press A/V WINDOW +/- until the cursor points to "TIME."

- Press A/V WINDOW +/- to set the hour.  
Then press RETURN.
- Press A/V WINDOW +/- to set the minute.  
Then press RETURN.
- Press A/V WINDOW +/- to set the second.  
Then press RETURN.



**4** Press RETURN again.  
**4** The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.



Set DAYLIGHT SAVING first if needed.  
Press RETURN.

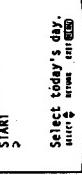
**a** If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

**b** To set daylight saving

- a** Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."
- b** Press RETURN.  
The time menu reappears, and the cursor points to "DAYLIGHT SAVING."
- c** Press RETURN.
- d** Press A/V WINDOW +/- to select "YES" or "NO."
- e** Press RETURN.  
The setting is complete.

- To set the time, press A/V WINDOW +/- until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.
- f** Press RETURN.  
The time menu reappears, and the cursor points to "DAYLIGHT SAVING."
- g** Press A/V WINDOW +/- to select "YES" or "NO."
- h** Press RETURN.

- i** Press A/V WINDOW +/- to set the hour.  
Then press RETURN.
- j** Press A/V WINDOW +/- to set the minute.  
Then press RETURN.
- k** Press A/V WINDOW +/- to set the second.  
Then press RETURN.
- l** Press RETURN.



Select today's day.

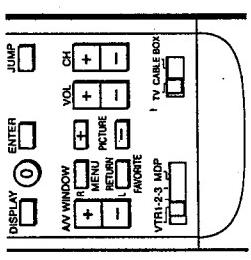
(Continued)

## Using Timer-Activated Functions

### Setting the clock — CURRENT TIME SET

(Cont'd from previous page)

Remote Commander



**11** Press RETURN.  
The cursor points to "START."

Follow these instructions to make the program of your choice appear on the screen at a specified time.

**12** Check the actual time, and press RETURN to start the clock.  
The setting is complete.

**7** Press RETURN.  
The hour and am/pm displays turn red.

**8** Press AV WINDOW +/- to set "3:00PM."  
Each time you press AV WINDOW +/-, the hour changes in sequence beginning with "12:00AM."



**9** Press RETURN.  
The minute display turns red.

**10** Press AV WINDOW +/- to select "15" (minutes).  
Each time you press AV WINDOW +/-, the minutes change in sequence.



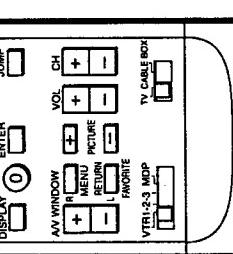
### Setting the ON/OFF TIMER

Press RETURN.  
The cursor points to "1."

**5** The On/Off Timer screen appears, and the cursor points to "1".

Example: Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



**6** To set program 1, press RETURN.  
(To see program 2 or 3, press AV WINDOW +/- until the cursor points to that program; then press RETURN.)

**7** Press AV WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.  
Each time you press AV WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 6).



**1** Press MENU.

The main menu appears.

**2** Press AV WINDOW +/- to select "TIME"; then press RETURN.  
Each time you press AV WINDOW +/-, the hour changes in sequence.

**3** Press RETURN.  
The time menu appears.



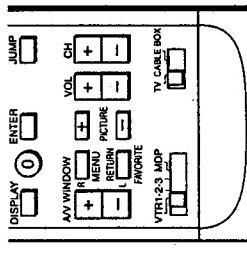
(Continued)

**4** Press AV WINDOW +/- until the cursor points to "ON/OFF TIMER."

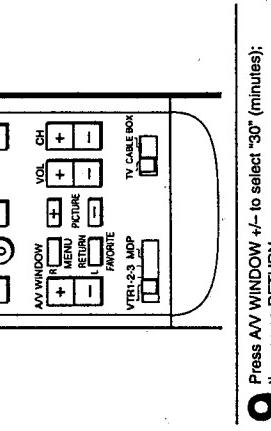
## Using Timer-Activated Functions

### Setting the ON-OFF TIMER (Cont'd from prev. page)

Remote Commander

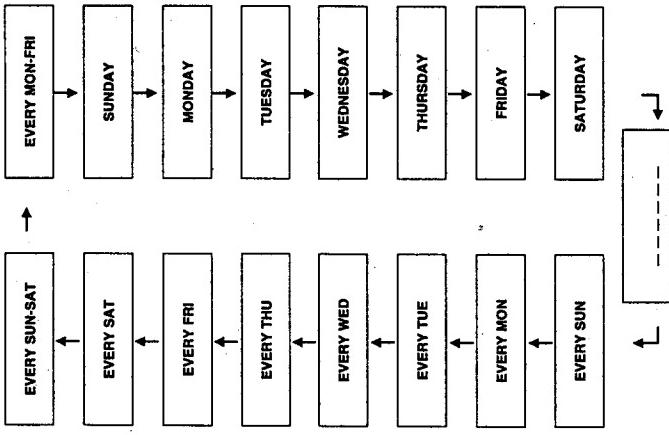


- 11** Press A/V WINDOW +/- to select "8" (channel); then press RETURN. The TIMERSTAND BY lamp lights, indicating that the setting is complete.



- 9** Press A/V WINDOW +/- to select "30" (minutes); then press RETURN. Each time you press A/V WINDOW +/-, the minutes change in sequence.

**Fig. 1** Selecting the day(s) of the week  
When you press A/V WINDOW +/-, the days of the week appear in the following order:



The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

- To set program 2 or 3.**  
Press RETURN and repeat steps 6 - 11.

**To erase an ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day. The ON/OFF TIMER setting is erased.

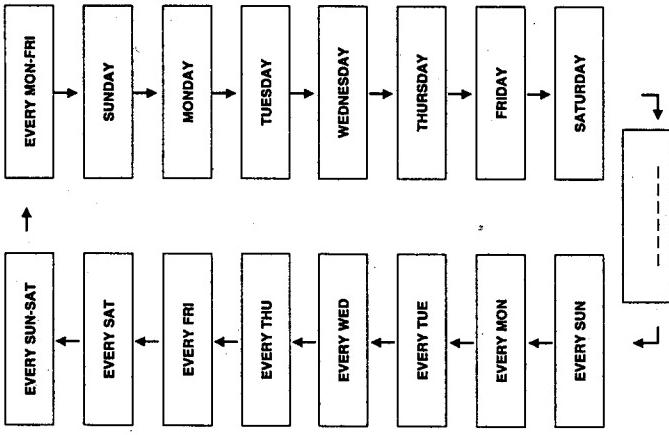
**To enter a new ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "► MENU". Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.  
To return to the normal screen.  
Press MENU.

**Note**  
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time, then set the timer.

**Fig. 1** Selecting the day(s) of the week  
When you press A/V WINDOW +/-, the days of the week appear in the following order:



The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

- To set program 2 or 3.**  
Press RETURN and repeat steps 6 - 11.

**To erase an ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day. The ON/OFF TIMER setting is erased.

**To enter a new ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "► MENU". Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.  
To return to the normal screen.  
Press MENU.

**Note**  
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time, then set the timer.

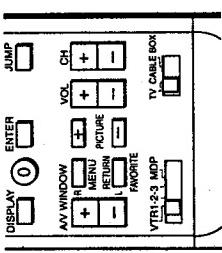
## Using Timer-Activated Functions

### Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

**Example:** Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

**Remote Commander**



**Note**  
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

**1** Press MENU.

The main menu appears.



**2** Press AV WINDOW +/- until the cursor points to "TIME".

**3** Press RETURN.

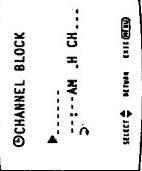
The time menu appears.



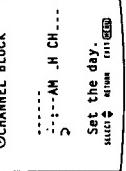
**4** Press AV WINDOW +/- until the cursor points to "CHANNEL BLOCK".

**5** Press RETURN.

The CHANNEL BLOCK screen appears, and the cursor points to the day input space.



**6** Press RETURN.



**7** Press AV WINDOW +/- to select "EVERY SAT"; then press RETURN.  
Each time you press AV WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 6).



**8** Press AV WINDOW +/- to select "4:00PM"; then press RETURN.  
Each time you press AV WINDOW +/-, the hour changes in sequence.



**9** Press AV WINDOW +/- to select "4:30" (minutes); then press RETURN.  
Each time you press AV WINDOW +/-, the minutes change in sequence.

**10** Press AV WINDOW +/- to select "1" (hour duration); then press RETURN.  
Each time you press AV WINDOW +/-, the duration changes from "1" - "6" in sequence.

**11** Press AV WINDOW +/- to select "12" (channel); then press RETURN.  
The setting is complete.  
Each time you press AV WINDOW +/-, the channel number changes from "1" - "125" in sequence.

**12** Press AV WINDOW +/- to select "EVERY SAT", "2", "4:30PM", "1H CH 12", "SELECT", and "RETURN".

To erase a CHANNEL BLOCK setting  
Display the CHANNEL BLOCK screen and select a blank  
space for the day.  
The CHANNEL BLOCK setting is erased.

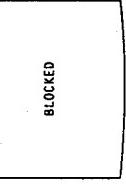
To enter a new CHANNEL BLOCK setting  
Display the CHANNEL BLOCK screen and repeat steps  
4 - 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"2 MENU".  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
To return to the normal screen.  
Press MENU.

**Note**  
If the ON/OFF TIMER is set for an overlapping time (pp. 59 - 61),  
the later time setting takes precedence. For example, if CHANNEL  
BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM,  
ON/OFF TIMER will take effect at 3:00 PM.

**At the specified time, "BLOCKED" appears in red on the screen,  
and the picture of the specified channel is blocked and the sound is muted.**



## SAFETY CHECK-OUT

(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery-operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a coldwater pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

To Exposed Metal Parts on Set

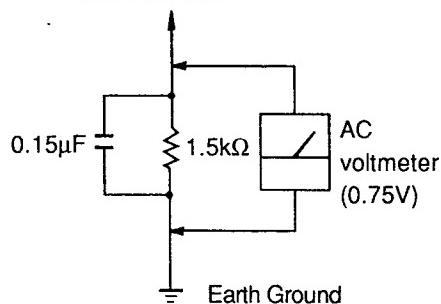


Fig. A. Using an AC voltmeter to check AC leakage.

Trouble Light

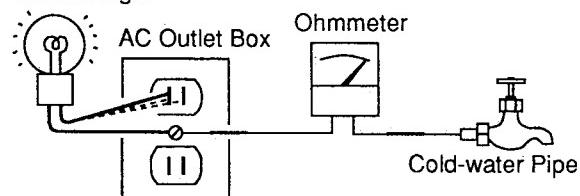
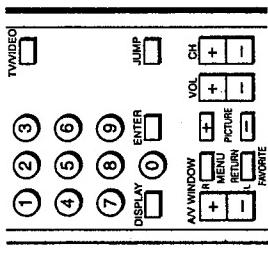


Fig. B. Checking for earth ground.

## Setting FAVORITE CHANNEL

By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN.

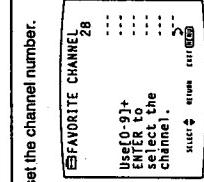
Remote Commander



**5** Press RETURN.  
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.



**6** Press AV WINDOW +/- to select the channel position; then press RETURN.



**7** Press 0 – 9 and ENTER to set the channel number.



**8** Press RETURN.  
The setting is complete.

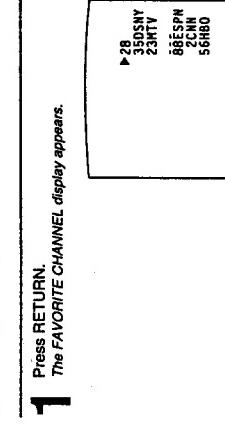
**2** Press AV WINDOW +/- until the cursor points to "SET UP."

**3** Press RETURN.  
The set up menu appears.



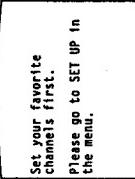
**4** Press AV WINDOW +/- until the cursor points to "FAVORITE CHANNEL."

**1** Press RETURN.  
After setting the channels, follow these instructions to select the channel you want to watch.



**2** Press AV WINDOW +/- to select the channel you want to watch; then press RETURN.  
The channel is selected.

If you press RETURN on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Follow steps 1 – 8 to set your favorite channels, and then make the selection.

**To erase a favorite channel setting**  
Press AV WINDOW +/- until the cursor points to the channel number you want to erase; press RETURN, then press 0 and ENTER.

**To reset a favorite channel setting**  
Display the FAVORITE CHANNEL screen and repeat steps 6 – 8.

**To return to the previous menu**  
Press AV WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.  
**To return to the normal screen.**  
Press MENU.

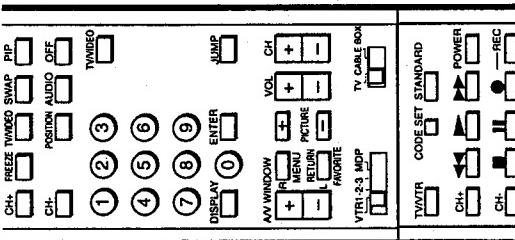
# Using the Pre-Programmed Remote Commander

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

## Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

### Remote Commander (with video control cover open)



**2** Use the video operating buttons to control the connected equipment.

**3** Follow these instructions to operate Sony video equipment

Fig. 3: Operating a VCR (VTR1, 2, 3)	
To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/-.
To record	Press ● and REC simultaneously.
To play	Press ▶.
To stop	Press ■.
To fast forward	Press ▶▶.
To rewind the tape	Press ▶◀.
To pause	Press ■■.
To search the picture forward and backward	Keep pressing ▶ or ▶◀ during playback. To resume normal playback, release the button.
To change input mode	Press TV/TV/VR.

Fig. 4: Operating a Video Disc Player (MDP)	
To turn on or off	Press POWER.
To play	Press ▶.
To stop	Press ■.
To pause	Press ■■.
	To resume normal playback, press again.
	Note This function is effective only for CAV (standard-play disc), With CLV (extended-play disc), the projection TV goes off (standby mode) if you press ■■.
	Keep pressing ▶ or ▶◀ during playback. To resume normal playback, release the button.
To search the picture forward and backward	Keep pressing ▶ or ▶◀ during playback. To resume normal playback, release the button.

- Notes**
- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
  - If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 68 - 69), you must also set the Sony code to operate Sony equipment.
- Caution**
- When you replace the batteries, do so within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 68 - 70) may be erased.

**1** Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.



Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

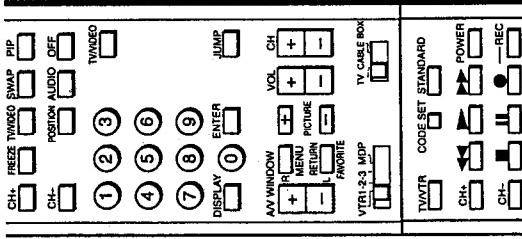
## Using the Pre-Programmed Remote Commander

### Operating non-Sony or Sony video equipment

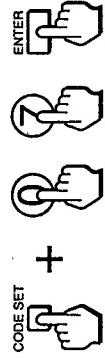
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

**Example:** Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

Remote Commander  
(with video control cover open)



**2** While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 68.)



**3** Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 66 and Fig. 4 on p. 67.)

**1** Set the VTR1-2-3 MDP selector to VTR2.



**Note**  
To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

**Note**  
In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILLIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

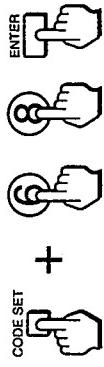
## Using the Pre-Programmed Remote Commander

### Operating a cable converter box

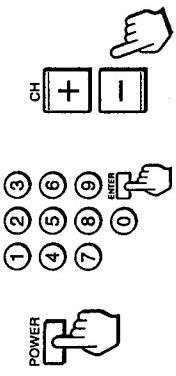
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

**Example:** Operate a connected Zenith cable converter box.  
(with video control cover open)

**2** While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 8) and ENTER.



**3** Use the projection TV control buttons (POWER, 0 – 9, ENTER and CH +/-) to operate the cable converter box.



To return to the normal screen  
Set the TV/CABLE BOX selector to "TV", then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box  
Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERRIOLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

**1** Set the TV/CABLE BOX selector to CABLE BOX.



**4** Press AV WINDOW +/- until the cursor points to "DIRECT PLAY".

**5** Press RETURN.  
A message screen appears.

**6** Press RETURN again.

**7** Press AV WINDOW +/- until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1".)

**8** Press RETURN.  
The mode display turns red.

(Continued)

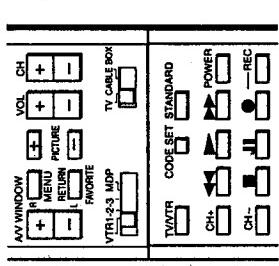
### Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

**Example:** Connect your VCR to the VIDEO 2 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 2 IN jacks.

After completing the steps below, the VTR selector position is retained in the projection TV's memory.

Remote Commander (with video control cover open)



Note:  
This screen reminds you to  
set the manufacturer's code, if you  
have not already done so (pp. 68 – 69).

**6** Press RETURN again.

**7** The DIRECT PLAY screen appears.



**1** Press MENU.  
The main menu appears.



**2** Press AV WINDOW +/- until the cursor points to "SET UP".

**3** Press RETURN.  
The set up menu appears.

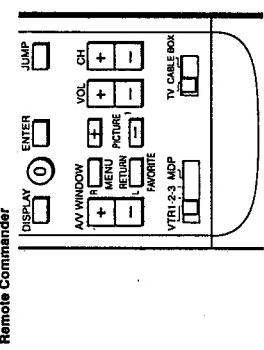


Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

## Using the Pre-Programmed Remote Commander

Selecting a VCR mode directly – DIRECT PLAY  
(Cont'd from prev. page)



**9** Press A/V WINDOW +/- to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, each time you press A/V WINDOW +/-, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



**10** Press RETURN.  
The direct play setting is complete.

To set direct play for other connected video equipment  
Repeat steps 7 – 10.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
To return to the normal screen.  
Press MENU.

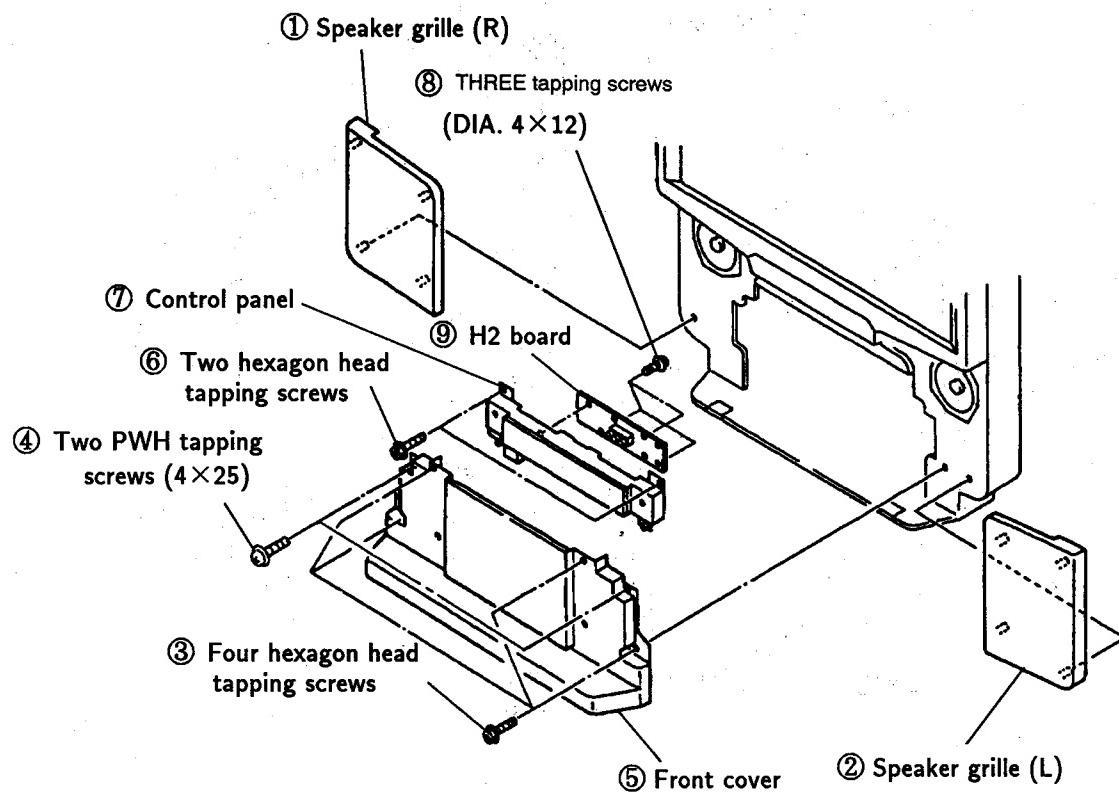
## Appendix Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here.  
If the problem still cannot be solved, contact your nearest service facility.

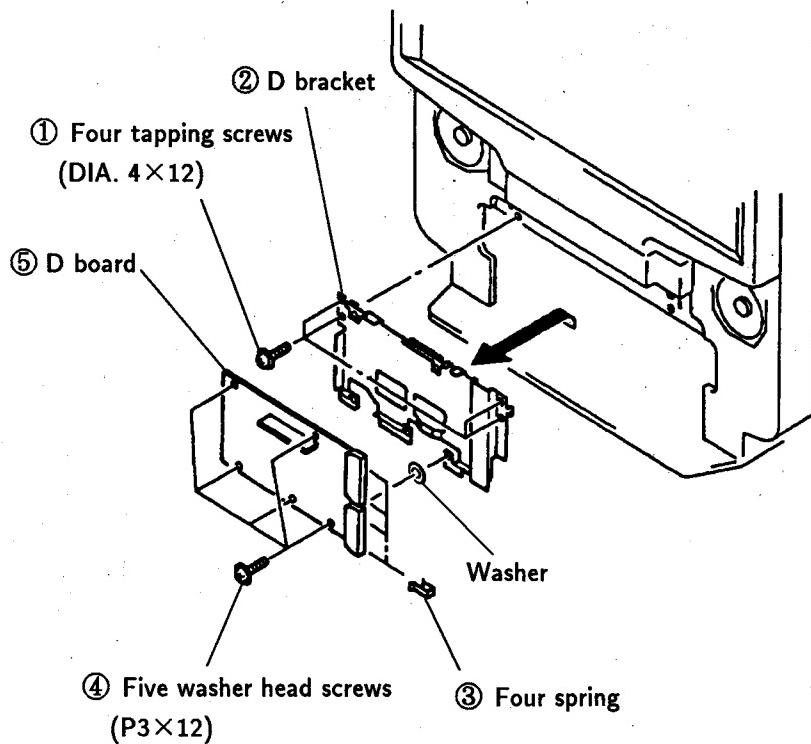
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li>Make sure POWER is switched on.</li> <li>Check the power cord connection.</li> <li>Make sure that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure that the TV/CABLE BOX selector is set to TV.</li> </ul>
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> <li>Adjust the picture using the VIDEO screen (pp. 44 – 47).</li> <li>Check the antenna/cable connections.</li> <li>Adjust the color registration (pp. 24 – 25).</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>Press VOLUME + on the projection TV or VOL + on the Remote Commander.</li> <li>Press MUTING on the Remote Commander.</li> <li>Check the MTS setting (p. 51).</li> <li>Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure SPEAKER is set correctly (p. 52).</li> </ul>
No color for color programs	<ul style="list-style-type: none"> <li>Check the HUE and COLOR settings (pp. 44 – 45).</li> </ul>
Snow and noise only	<ul style="list-style-type: none"> <li>Check that it is an active or correct channel.</li> <li>Check the cable setting.</li> <li>Check antenna/cable connections.</li> </ul>
Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Remote control does not operate	<ul style="list-style-type: none"> <li>Check the battery in the Remote Commander.</li> </ul>
No picture and/or sound for the connected equipment	<ul style="list-style-type: none"> <li>Check that the TV/VIDEO button is set correctly.</li> <li>Check that the connections are properly made.</li> <li>Check that the power of the connected equipment is turned on.</li> <li>Check that the connected equipment is set correctly.</li> </ul>
	Try another channel. It could be station trouble.

## SECTION 2 DISASSEMBLY

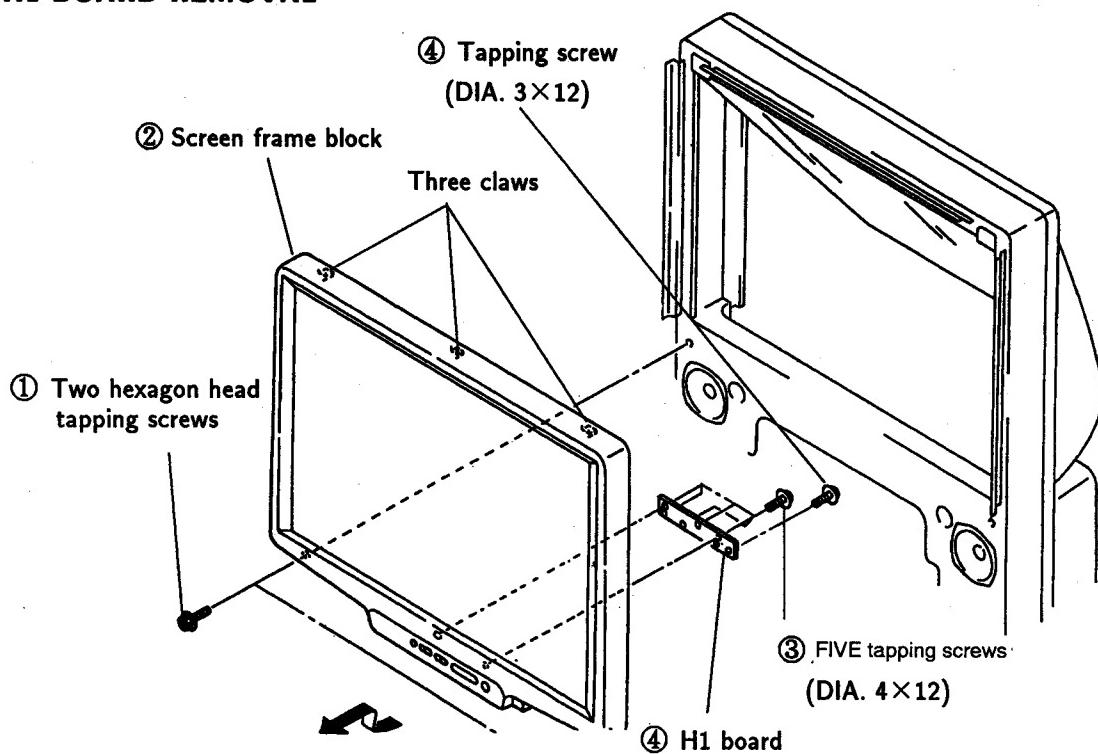
### 2-1. H2 BOARD REMOVAL



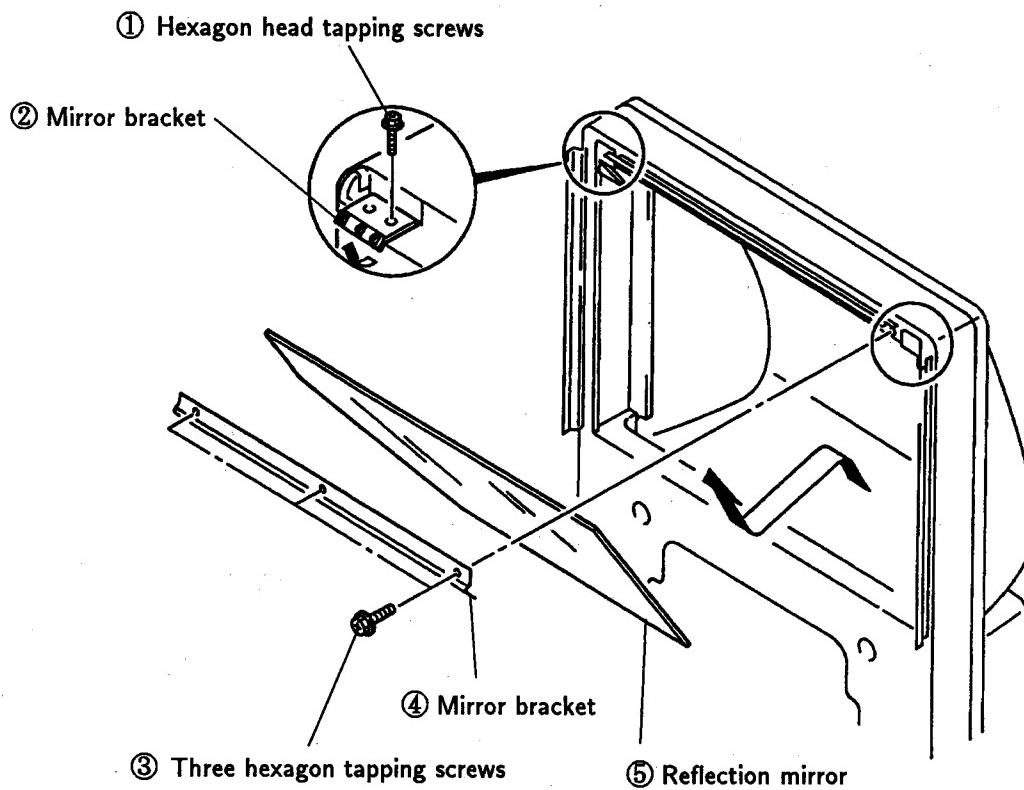
### 2-2. D BOARD REMOVAL



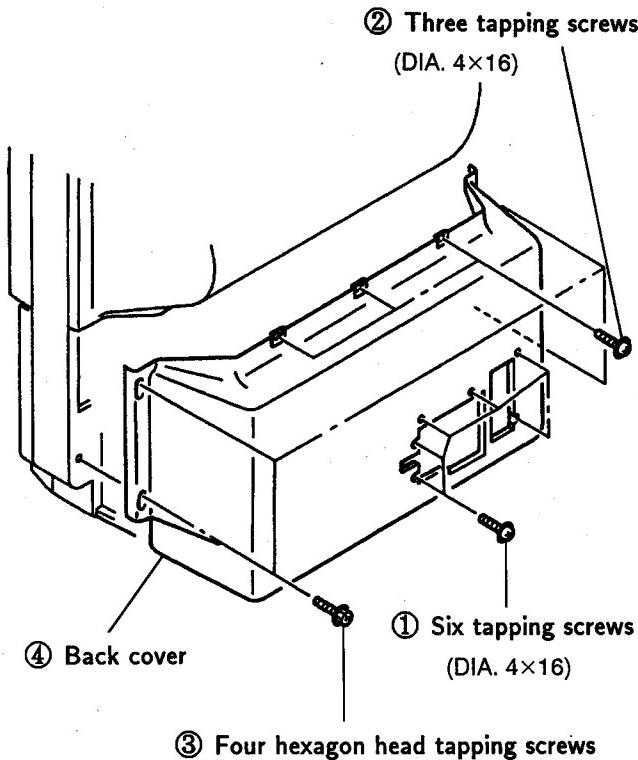
## 2-3. H1 BOARD REMOVAL



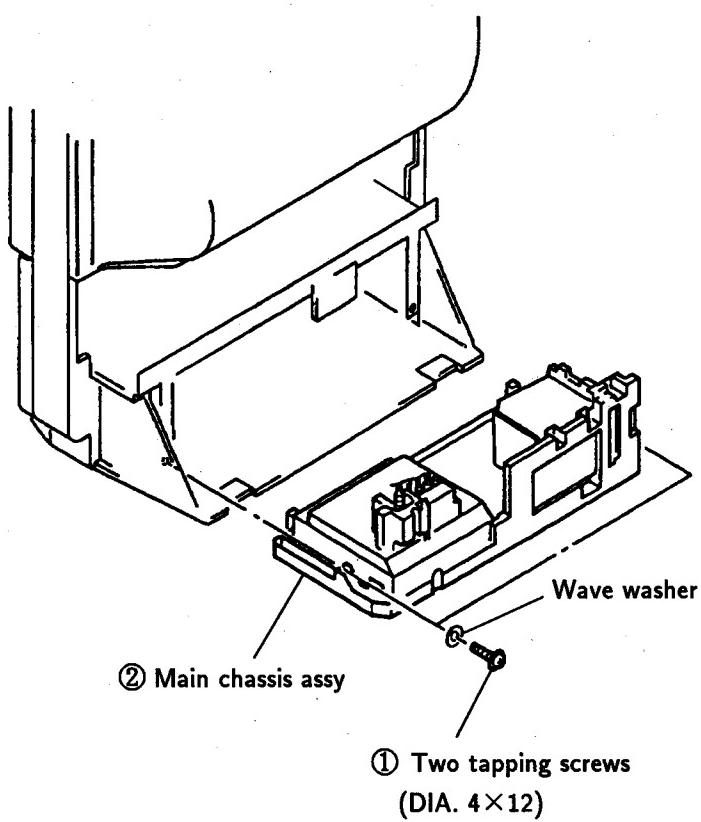
## 2-4. REFLECTION MIRROR REMOVAL



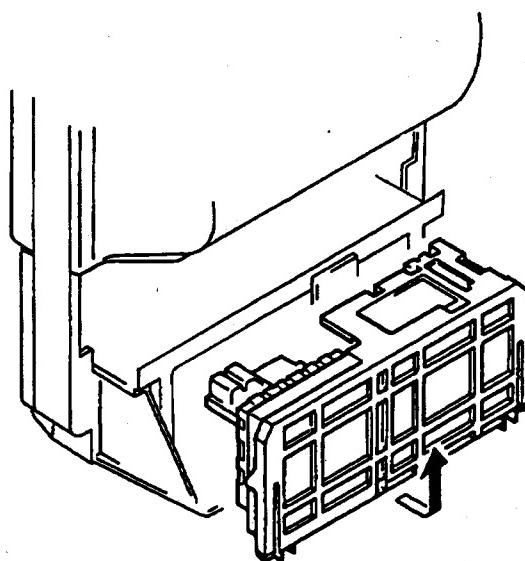
## 2-5. BACK COVER REMOVAL



## 2-6. MAIN CHASSIS ASSY REMOVAL



## 2-7. SERVICE POSITION



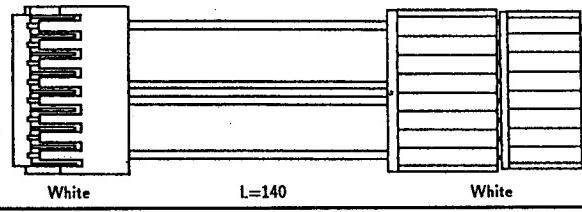
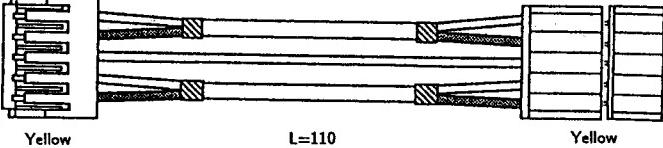
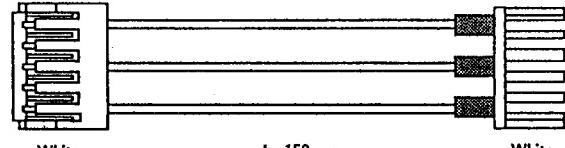
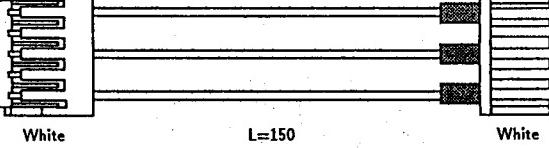
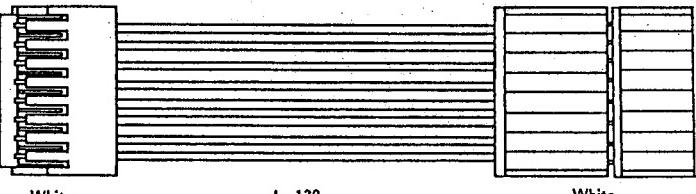
**NOTES INSERTED IN SERVICE POSITION**

**Service Position Procedure**

- 1) Remove the path locks where the harness comes into.(MAIN bracket, G shield)
  - 2) Remove the following connectors before removing the main bracket.  
※ HV grounding lead, G shield grounding lead, V-2 connector(V board).
  - 3) Remove the main bracket.(Take care as the connector leads linking to the C and Z boards considerably short).
  - 4) Before power ON, be sure to connect the connectors removed.  
※ HV grounding lead, G shield grounding lead.
- In case that grounding lead(Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.
- Be sure to connect grounding lead of HV Block with chassis grounding.

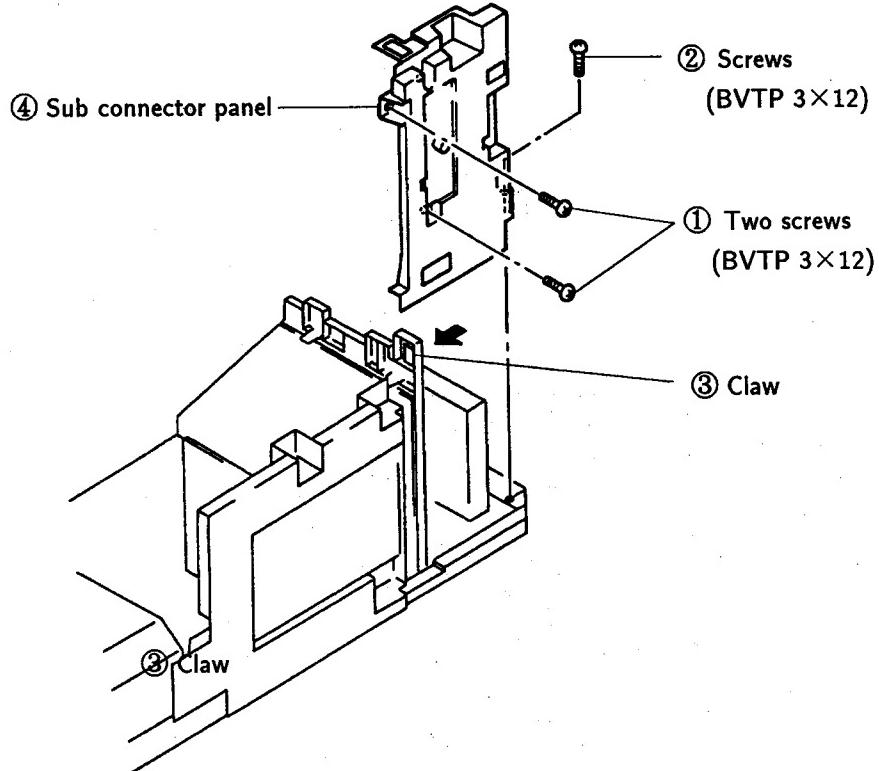
**CONNECTOR CABLES**

※ In order to put the set in the service position, use the extension connector cables below.

Parts No.	Connection
1-941-897-38	CB-4toCN1652(G BOARD)
1 : Brown 2 : — 3 : — 4 : Yellow 5 : Green 6 : — 7 : — 8 : Gray	
Parts No.	Connection
1-941-897-39	CG-16toCN1608(A BOARD)
1 : White/Gray 2 : Gray/Shield 3 : Orange 4 : Red/Gray 5 : Gray/Shield	
Parts No.	Connection
1-941-897-40	ZG-19toCN1308(DO BOARD)
1 : Green 2 : — 3 : Black 4 : — 5 : Brown	
Parts No.	Connection
1-941-897-41	ZR-18toCN1306(DO BOARD)
1 : Red 2 : — 3 : Black 4 : — 5 : Brown	
Parts No.	Connection
1-941-897-42	ZG-2toD-2
1 : — 2 : Red 3 : Orange 4 : Yellow 5 : Green 6 : Blue 7 : Violet 8 : Gray	

Parts No.	Connection	
1-941-897-43	CR-15toCN1609(A BOARD)	
1 : White/Gray 2 : Gray/Shield 3 : Orange 4 : Red/Gray 5 : Gray/Shield		
Red	L=180	Red
Parts No.	Connection	
1-941-897-44	ZR-1toD-1	
1 : Brown 2 : Red 3 : Orange 4 : Yellow 5 : Green 6 : Blue 7 : Violet		
White	L=150	White
Parts No.	Connection	
1-941-897-45	A-21toCRT BRACKET	
1 : Black 2 : Black		
White	L=40	White
Parts No.	Connection	
1-941-897-46	V-2toZR-3	
1 : Brown 2 : - 3 : Red		
Red	L=200	Red

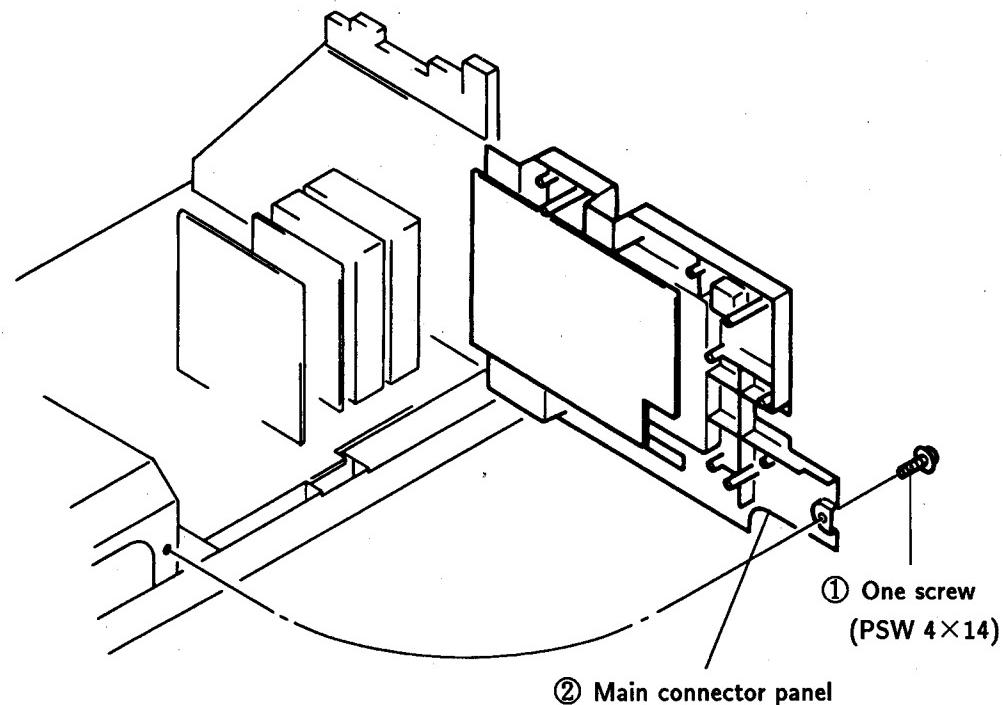
## 2-8. SUB CONNECTOR PANEL REMOVAL



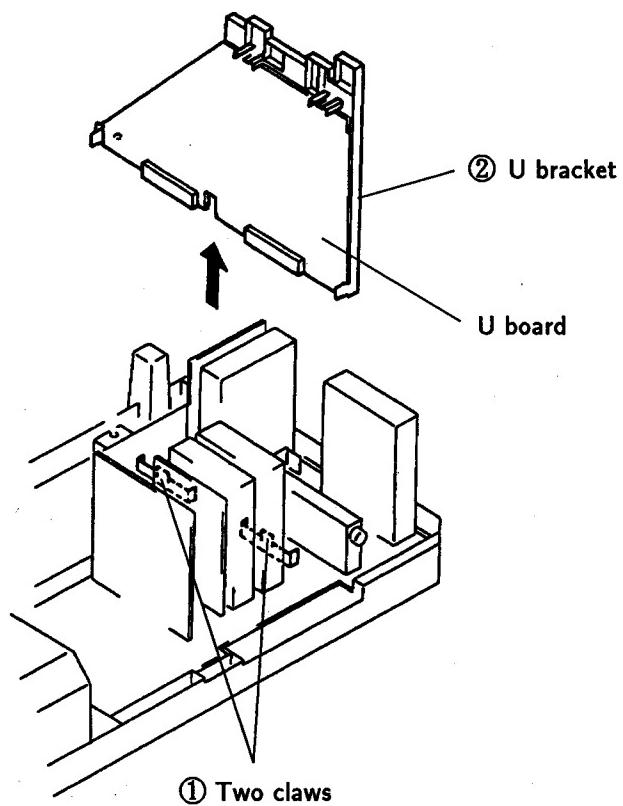
## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>					
Unpacking and Viewing Area .....	5				
Locating Controls and Connectors .....	5				
Using the On-Screen Menus .....	8				
Adjusting Color Registration (CONVERGENCE) .....	10				
Setting CABLE ON or OFF .....	11				
Presetting TV Channels .....	12				
Watching TV Programs .....	15				
Using Closed Caption .....	16				
Using Convenient Features .....	16				
Selecting a Picture and Sound Mode .....	17				
Watching Two Pictures at Once (PIP) .....	18				
Adjusting the Projection TV .....	20				
Customizing the Screen Display .....	24				
Using Timer-Activated Functions .....	26				
Setting FAVORITE CHANNEL .....	30				
Using the Pre-Programmed Remote Commander .....	31				
Trouble Shooting .....	34				
<b>2. DISASSEMBLY</b>					
2-1. H2 Board Removal .....	35				
2-2. D Board Removal .....	35				
2-3. H1 Board Removal .....	36				
2-4. Reflection Mirror Removal .....	36				
2-5. Back Cover Removal .....	37				
2-6. Main Chassis Assy Removal .....	37				
2-7. Service Position .....	37				
2-8. Sub Connector Panel Removal .....	39				
2-9. Main Connector Panel Removal .....	40				
2-10. U Bracket Removal .....	40				
2-11. V Board Removal .....	41				
2-12. N Braket Removal .....	41				
2-13. G Board Removal .....	41				
2-14. Mirror Cover Removal .....	42				
2-15. Chassis Assy Removal .....	42				
2-16. Picture Tube Removal .....	43				
2-17. High-Voltage Cable Installtion and Removal .....	43				
2-18. Connector Cable .....	44				
<b>3. SETUP ADJUSTMENTS</b>					
3-1. Focus Lens Adjustments .....	45				
3-2. Deflection Yoke Position Adjustments .....	45				
3-3. 2-Pole Magnet Adjustment .....	46				
3-4. 4-Pole Magnet Adjustment .....	46				
3-5. De-Focus Adjustment (Blue) .....	46				
3-6. Green Picture Adjustments .....	46				
3-7. Green and Red Registration Adjustments .....	49				
3-8. Green and Blue Registration Adjustments .....	50				
3-9. Registration Chek .....	51				
3-10. White Balance Adjustments .....	51				
<b>4. SAFETY RELATED ADJUSTMENTS</b>					
4-1. Safety Related Adjustments .....	53				
<b>5. CIRCUIT ADJUSTMENTS</b>					
5-1. Electrical Adjustment by Remote Commander .....	57				
5-2. A Board Adjustments .....	59				
5-3. DS Board Adjustments .....	62				
5-4. P1 Board Adjustments .....	62				
<b>6. DIAGRAMS</b>					
6-1. Block Diagram (1) .....	64				
6-2. Block Diagram (2) .....	67				
6-3. Block Diagram (3) .....	71				
6-4. Frame Schematic Diagram .....	75				
6-5. Circuit Boards Location .....	78				
6-6. Schematic Diagrams and Printed Wiring Boards .....	78				
• A Board .....	80				
• U Board .....	87				
• UT Board .....	90				
• D Board .....	92				
• G Board .....	101				
• H1 Board .....	102				
• H2 Board .....	103				
• DS Board .....	103				
• CB Board .....	104				
• V Board .....	104				
• CG Board .....	105				
• ZB Board .....	105				
• CR Board .....	106				
• ZG Board .....	106				
• ZR Board .....	106				
• S Board .....	111				
• N Board .....	112				
• X2 Board .....	116				
• M Board .....	121				
• E1 Board .....	123				
• E2 Board .....	127				
• Y2 Board .....	129				
• P1 Board .....	135				
6-7. Semiconductors .....	137				
<b>7. EXPLODED VIEWS</b>					
7-1. Screen Frame and Control Panel .....	139				
7-2. Cabinet and Back Cover .....	140				
7-3. Chassis .....	141				
7-4. Picture Tube .....	142				
<b>8. ELECTRICAL PARTS LIST</b> .....					
					143

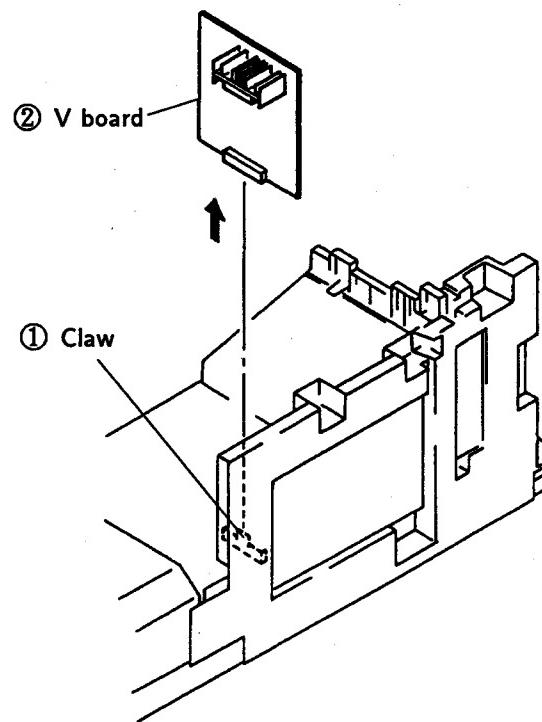
## 2-9. MAIN CONNECTOR PANEL REMOVAL



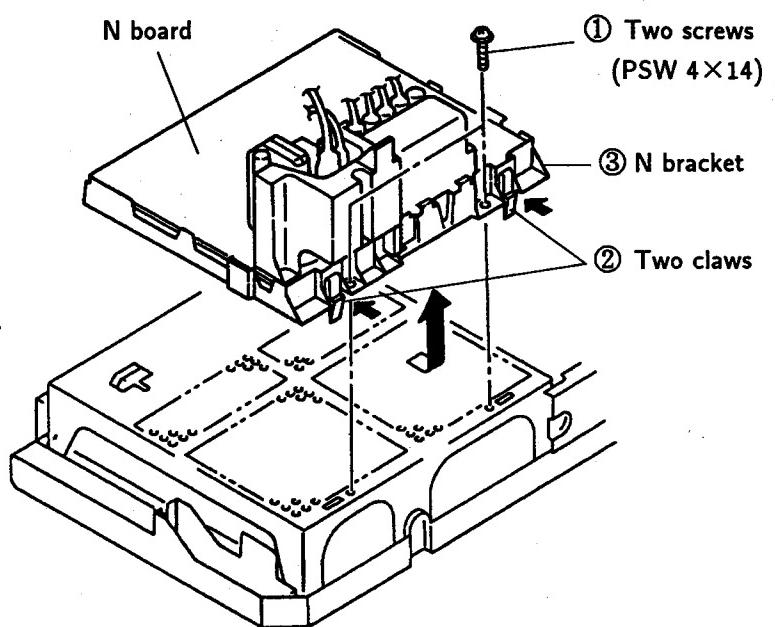
## 2-10. U BRACKET REMOVAL



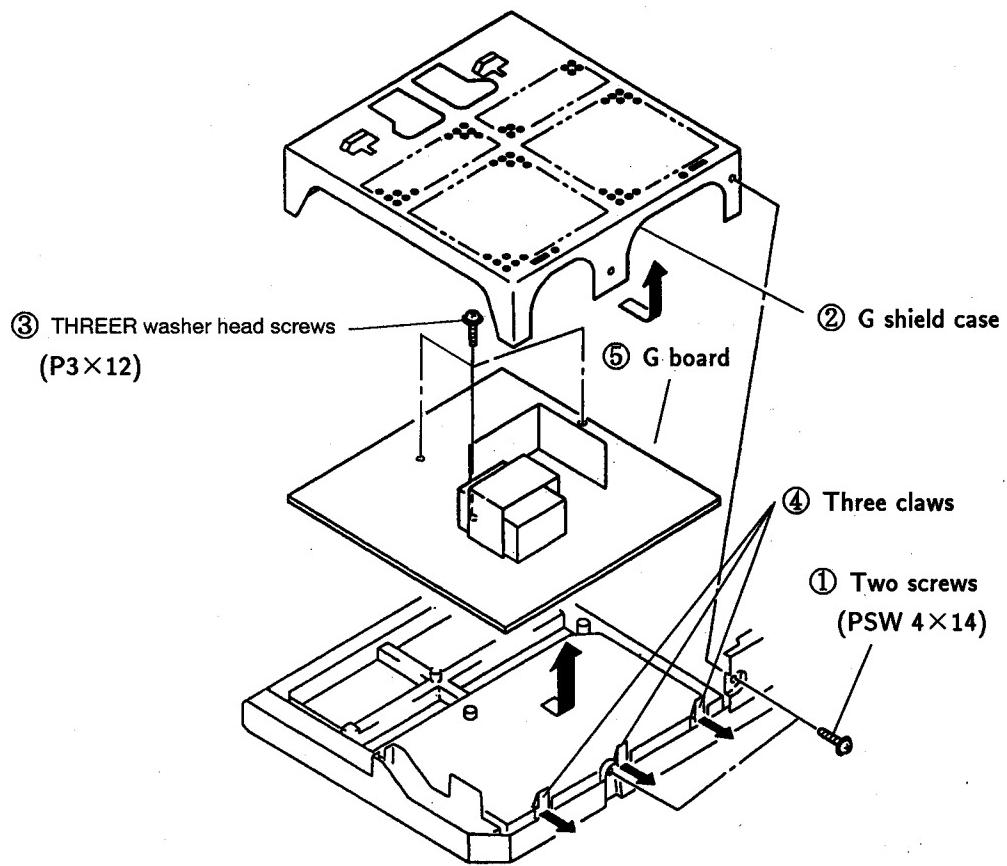
## 2-11. V BOARD REMOVAL



## 2-12. N BRACKET REMOVAL

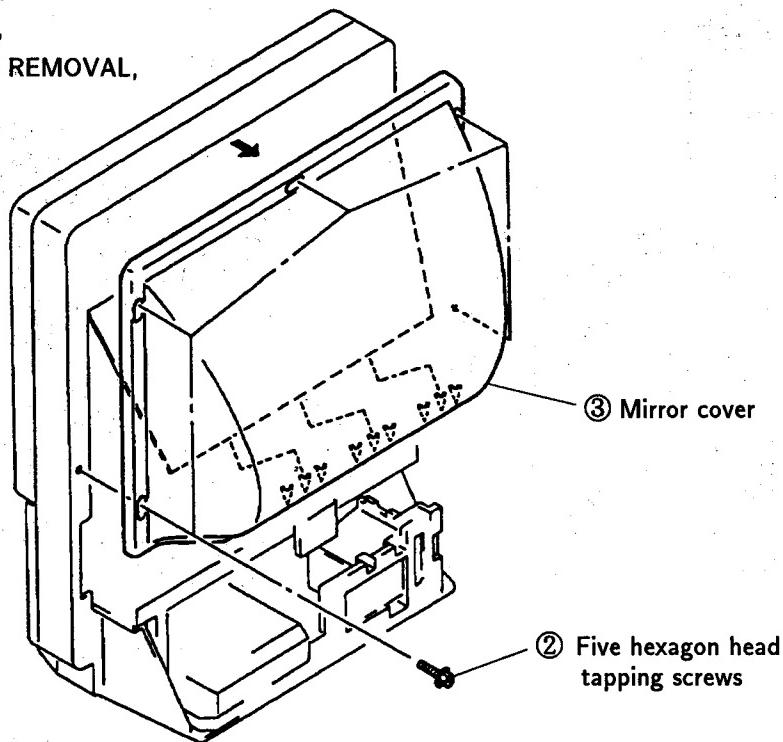


## 2-13. G BOARD REMOVAL

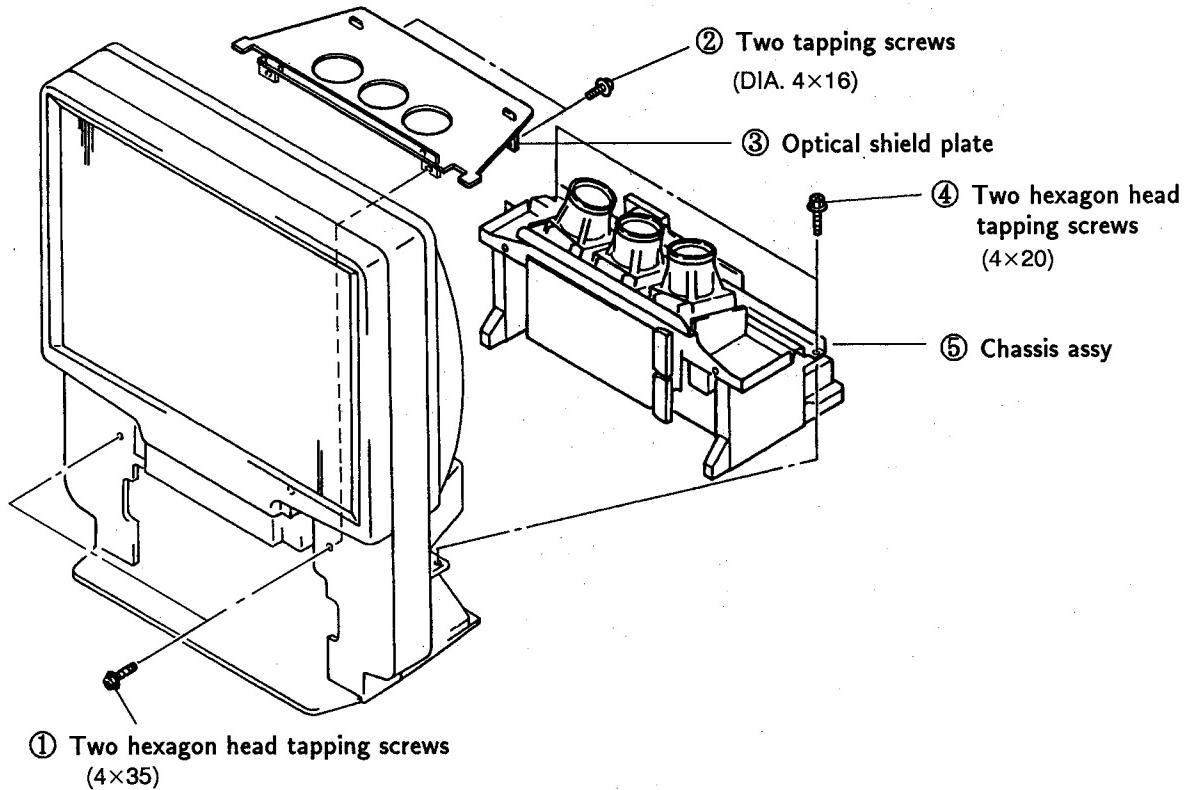


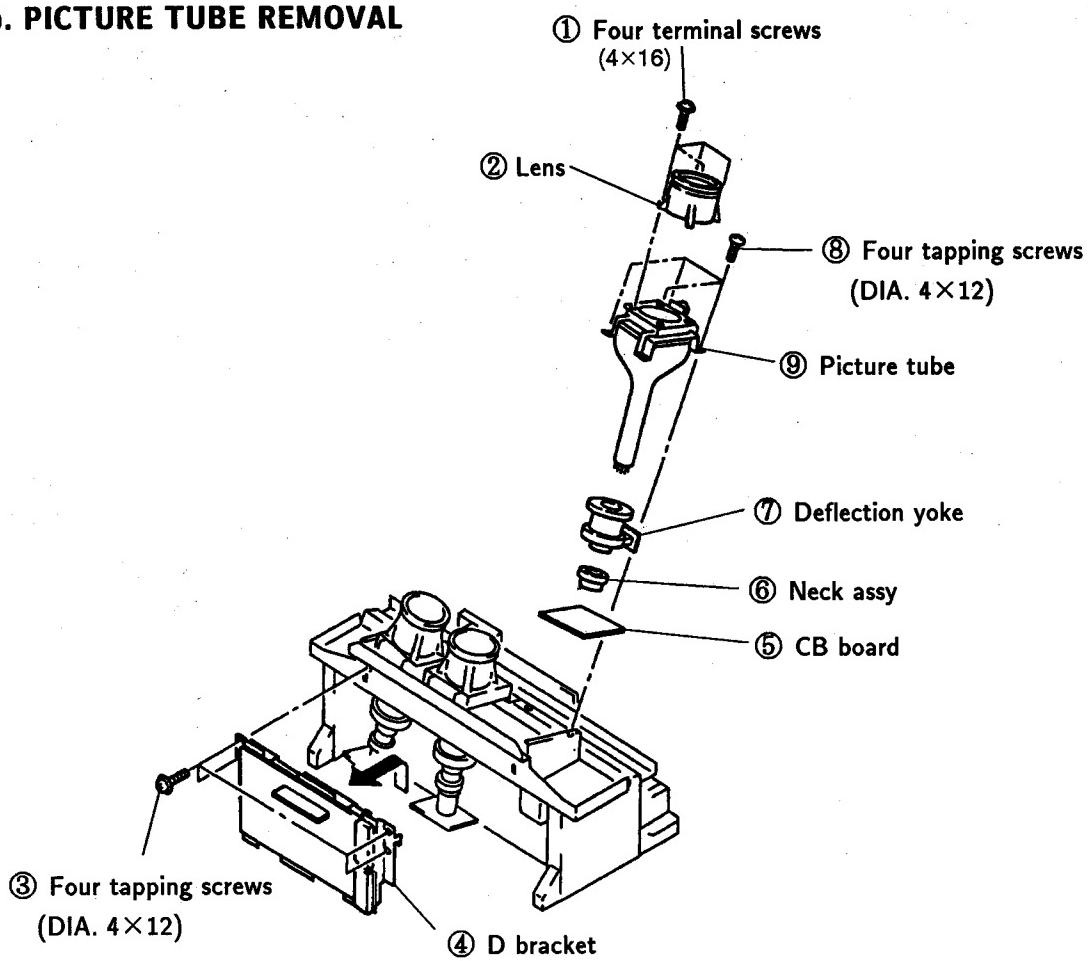
## 2-14. MIRROR COVER REMOVAL

- ① 2-1 H2 BOARD REMOVAL,
- 2-3 H1 BOARD REMOVAL,
- 2-4 REFLECTION MIRROR REMOVAL,

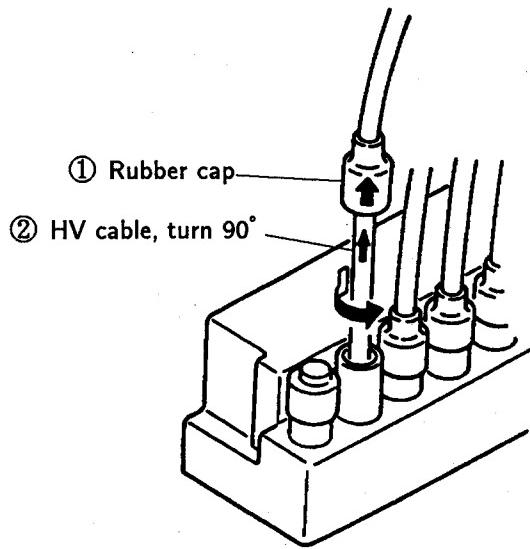


## 2-15. CHASSIS ASSY REMOVAL

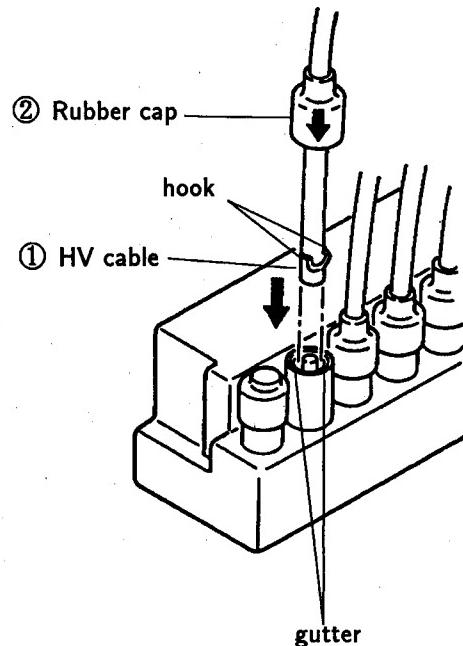


**2-16. PICTURE TUBE REMOVAL****2-17. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL**

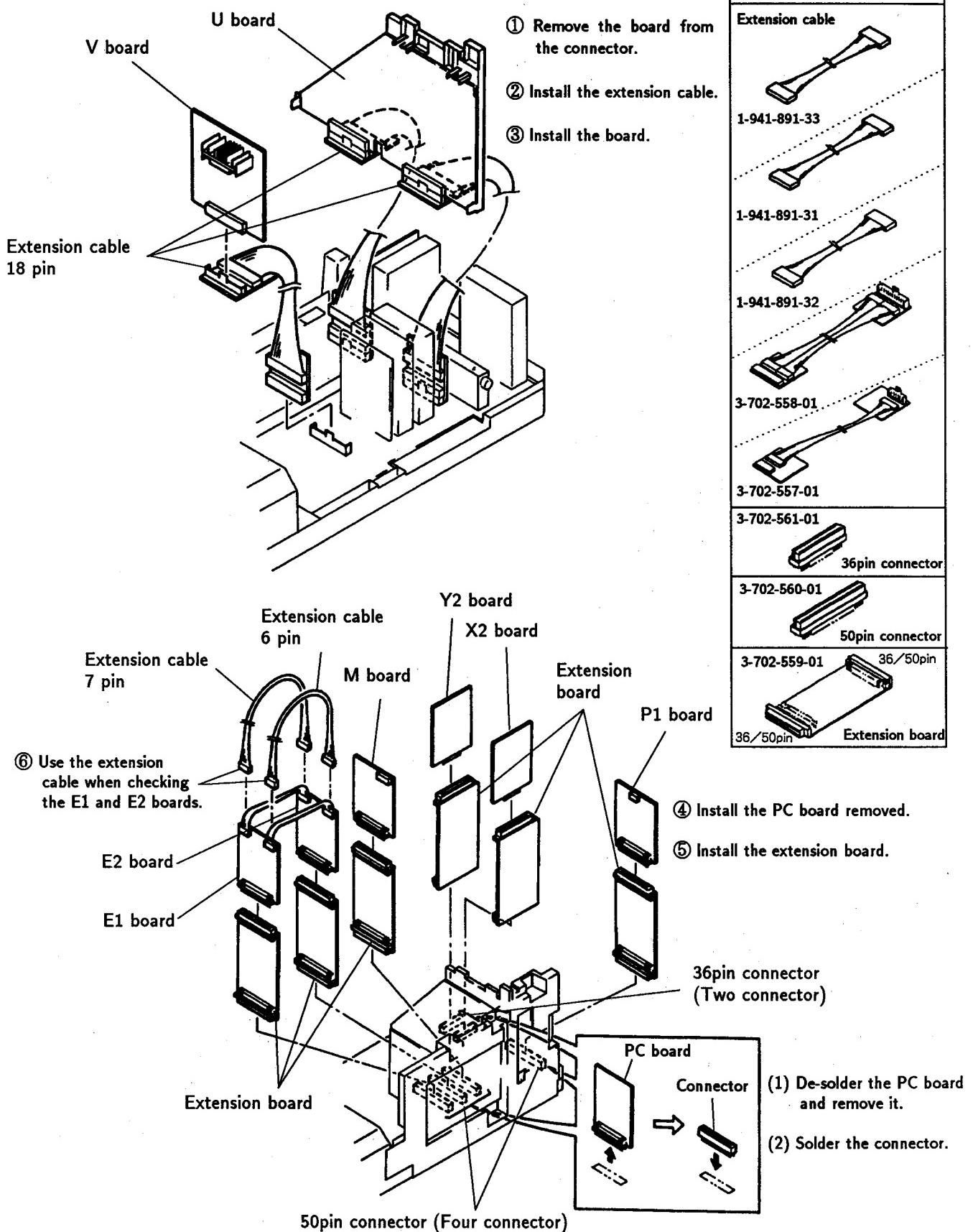
(1) Remover



(2) Installation



## 2-18. CONNECTOR CABLE

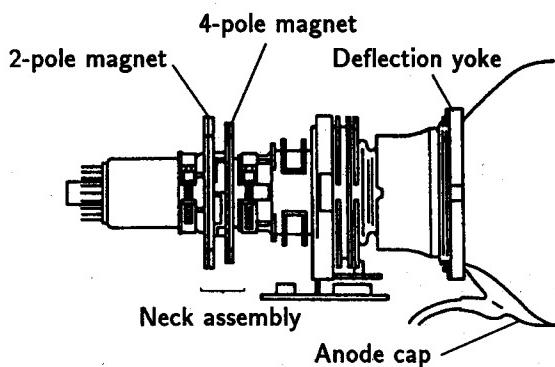


## SECTION 3

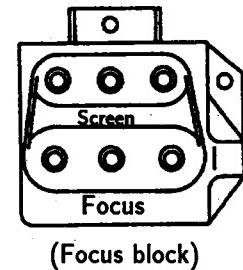
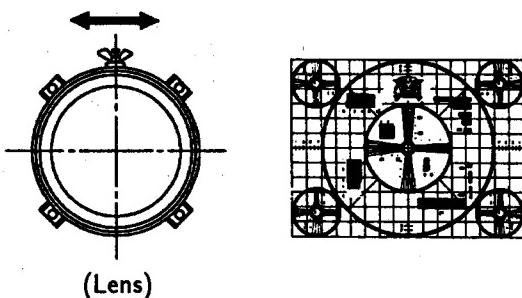
### SET-UP ADJUSTMENTS

#### 3-1. FOCUS LENS ADJUSTMENTS

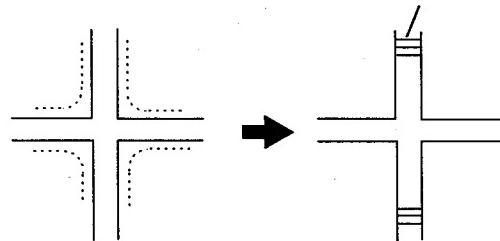
1. Set the D-board registration variable resistors (VR) to mechanical center.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.



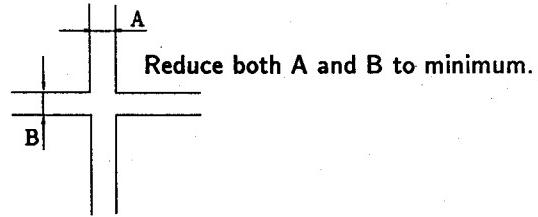
3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous using the screen VRs.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.



Verify that scanning lines are seen.



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



8. Repeat above 6 and 7. Couple of times to improve tracking and obtain an optimum focus. Then tighten the green lens screw.
9. Adjust the red and blue focuses similarly.

#### 3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

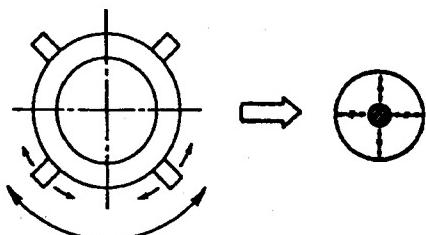
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

### 3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise from the just focus to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.

\* Use the center dot:red and green

Use the vertical center and left end dot: blue

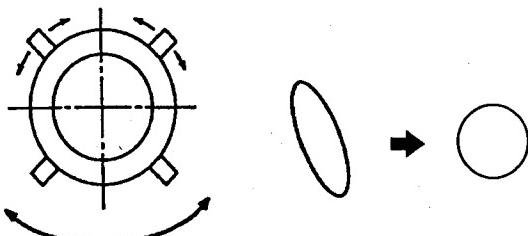


### 3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise (counter clockwise : blue) from the just focus until the dot diameter becomes as shown below.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Turn the green focus variable resistor to the just focus.
6. Adjust the red and blue dot in the same way.

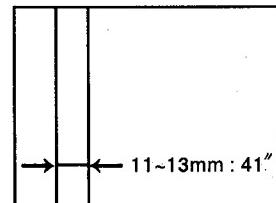
\* Use the center dot: red and green

Use the vertical center and left end dot: blue



### 3-5. DE-FOCUS ADJUSTMENT (BLUE)

1. Input cross hatch signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the width of the left end vertical line becomes as shown below.

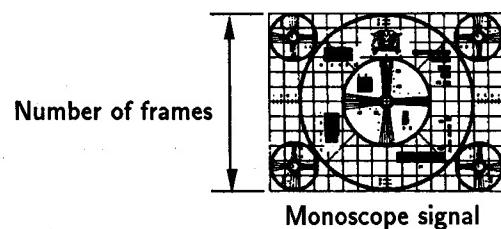


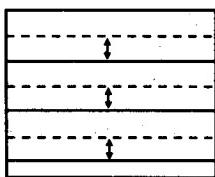
without flare

### 3-6. GREEN PICTURE ADJUSTMENTS

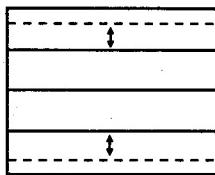
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitude variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 frames.

Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.

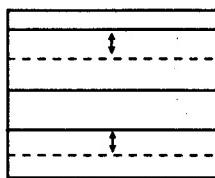




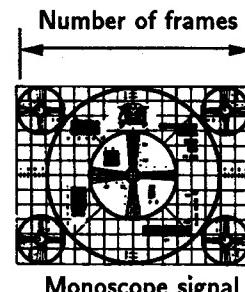
RV905 V.G CENT  
(vertical position)



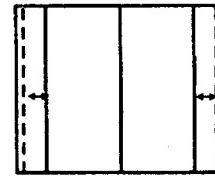
RV911 V.G SIZE  
(vertical amplitude)



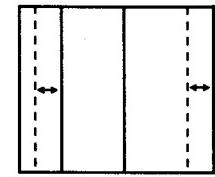
RV913 V.G LIN  
(vertical linearity)



Monoscope signal

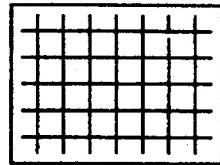


RV908 H.G SIZE  
(horizontal position)



RV916 H.G LIN  
(horizontal linearity)

- Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



- Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.

Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.

Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.

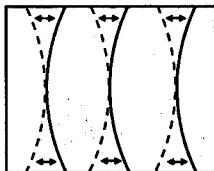
- Input cross hatch signal.

Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

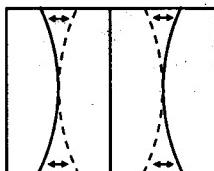
(Adjustment procedure)

- [BOW] → [SKEW] → [CENT (center position) ]
- [PIN (pin warp) ] → [SUB BOW] → [BOW]
- [KEYS (trapezoid) ] → [SUB SKEW] → [SKEW]
- [M.WAVE (middle sine wave warp) ] → [WAVE-A (upper and lower sine wave warp) ] → [WAVE-U (upper sine wave warp) ]  
※ For vertical (V) only.
- [V-M.PIN (vertical middle pin warp) ] → [V/WING (vertical wing warp) ]  
※ For vertical (V) only.
- [H-M.PIN (horizontal middle pin warp) ]  
※ For horizontal (H) only.

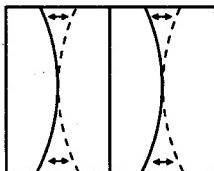
(Dot motion)



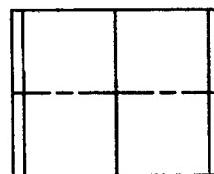
  
RV932 H.G BOW  
(horizontal green bow)



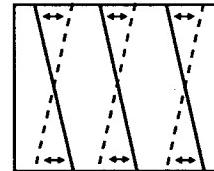
  
RV941 H.G PIN  
(horizontal green pin warp)



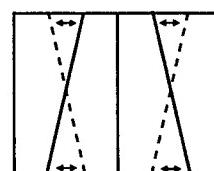
  
RV950 H.G SUB BOW  
(horizontal green sub bow)



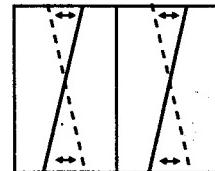
V.G BOW.....RV935  
V.G PIN.....RV938  
V.G SUB BOW.....RV953



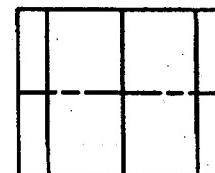
  
RV920 H.G SKEW  
(horizontal green skew)



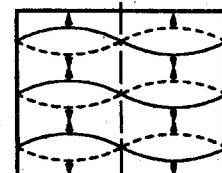
  
RV925 H.G KEYS  
(horizontal green trapezoid)



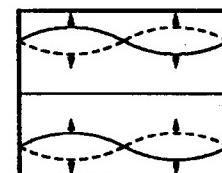
  
RV944 H.G SUB SKEW  
(horizontal green sub skew)



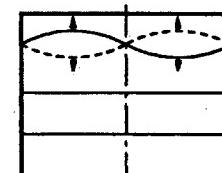
V.G SKEW.....RV923  
V.G KEYS.....RV929  
V.G SUB SKEW.....RV947



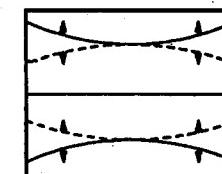
  
RV962 V-M-WAVE  
(vertical middle sine wave warp)



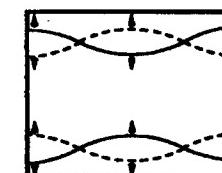
  
RV975 V-WAVE-A  
(vertical upper and lower  
sine wave warp)



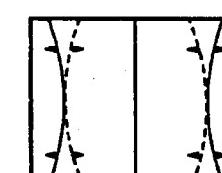
  
RV978 V-WAVE-U  
(vertical upper sine wave warp)



  
RV980 V-M. PIN  
(vertical middle pin warp)  
※ Common in red, green,  
and blue



  
RV957 V/WING  
(wing warp)  
※ Common in red, green,  
and blue



  
RV956 H/M. PIN  
(horizontal middle pin warp)

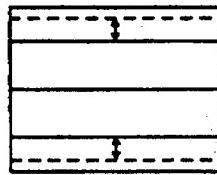
### 3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H.R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

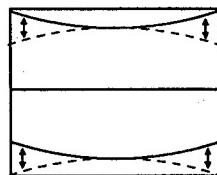
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)]
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW]  
[H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] →  
[WAVE-A (upper and lower sine wave warp)] →  
[WAVE-U (upper sine wave warp)]

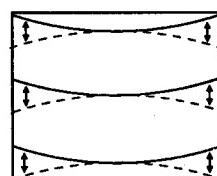
(Dot motion)



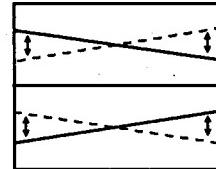
RV912 V.B SIZE  
(vertical red amplitude)



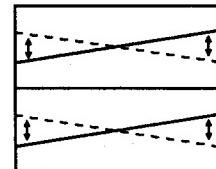
RV952 V.R SUB BOW  
(vertical red sub bow)



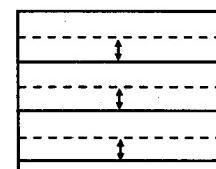
RV943 V.R BOW  
(vertical red bow)



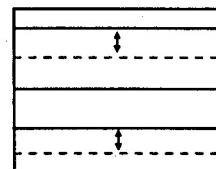
RV928 V.R KEYS  
(vertical red trapezoid)



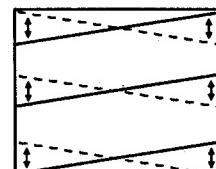
RV946 V.R SUB SKEW  
(vertical red sub skew)



RV904 V.R CENT  
(vertical red center position)



RV917 V.R LIN  
(vertical red linearity)



RV922 V.R SKEW  
(vertical red skew)

H.R LIN.....	RV915
H.R SIZE.....	RV907
H.R CENT.....	RV901
H.R BOW.....	RV931
H.R SKEW.....	RV919
H.R PIN.....	RV940
H.R KEYS.....	RV926
H.R SUB BOW.....	RV949
H.R SUB SKEW.....	RV943
V-M-WAVE.....	RV973
V-WAVE-A.....	RV976
V-WAVE-U.....	RV979
V-M.PIN.....	RV980
V/WING.....	RV957
H/M.PIN.....	RV956

## SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

### Chapter 1: Setting Up Unpacking and Viewing Area

- 1** Carefully follow the instructions on the outside of the packing carton to unpack the projection TV.

**Notes**

- The supplied accessories are packed in the bottom of the carton. Be sure not to throw them away.
- Keep the original carton and packing materials to safely transport the projection TV in the future.

- 2** Check to make sure that the following is included:

Universal Remote Commander  
RM-Y112A (1)  
with 2 size AA (R6) EVEREADY batteries

If the Remote Commander is missing, contact your dealer.

- 3** Place the projection TV in a cool, dry place where the ventilation openings at the sides are not blocked.

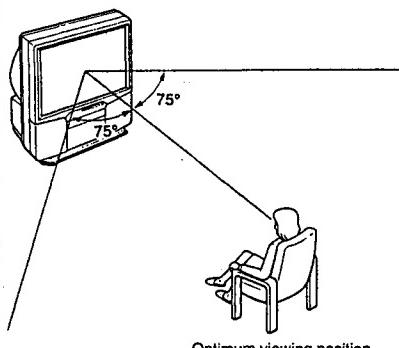
- 4** Plug the projection TV power cord into an AC 120 volt power outlet.

For further precautions, see p. 2.

#### Optimum viewing area

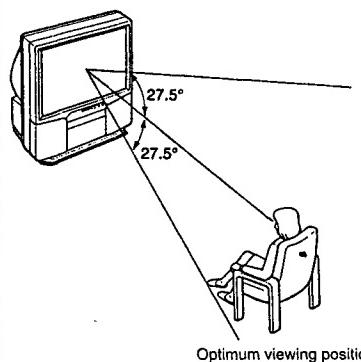
For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

#### Horizontal viewing area



Optimum viewing position

#### Vertical viewing area

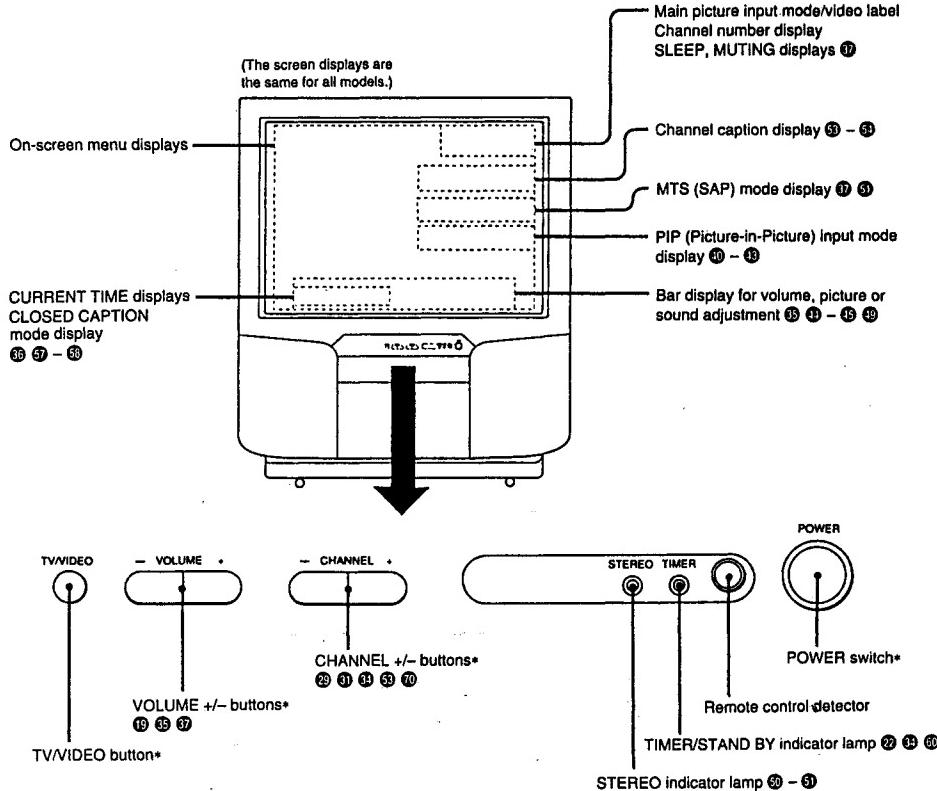


Optimum viewing position

### Locating Controls and Connectors

For details, see the pages indicated by the numbered black circles ●.

#### Front



\* Buttons with the same function are also located on the Remote Commander (p. 10).

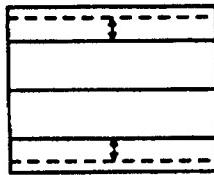
### 3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

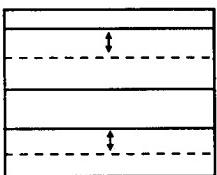
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW]  
[H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] →  
[WAVE-A (upper and lower sine wave warp)] →  
[WAVE-U (upper sine wave warp)] →

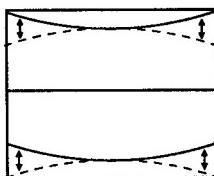
(Dot motion)



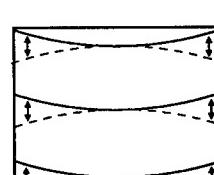
RV912 V.B SIZE  
(vertical blue amplitude)



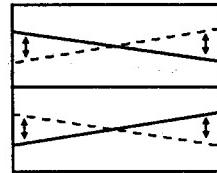
RV918 V.B LIN  
(vertical blue linearity)



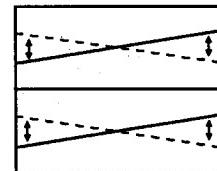
RV954 V.B SUB BOW  
(horizontal blue sub bow)



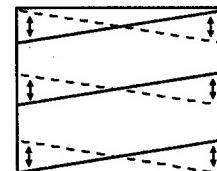
RV936 V.B BOW  
(vertical blue bow)



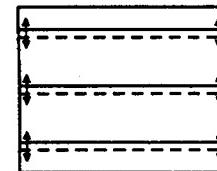
RV930 V.B KEYS  
(vertical blue trapezoid)



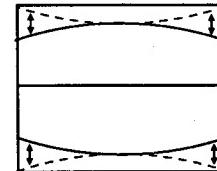
RV948 V.B SUB SKEW  
(vertical blue sub skew)



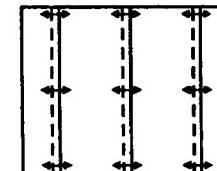
RV924 V.B SKEW  
(vertical blue skew)



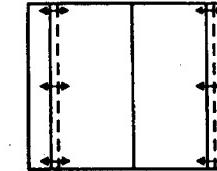
RV906 V.B CENT  
(vertical blue center position)



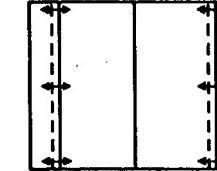
RV939 V.B PIN  
(vertical blue pin warp)



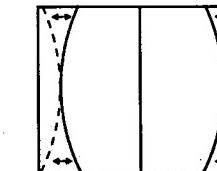
RV903 H.B CENT  
(vertical blue center position)



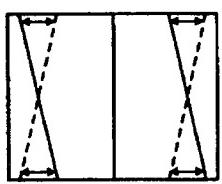
RV909 H.B SIZE  
(horizontal blue amplitude)



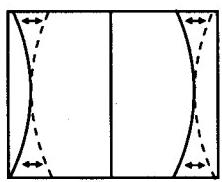
RV914 H.B LIN  
(horizontal blue linearity)



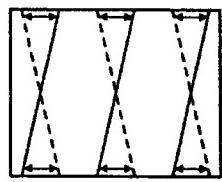
RV942 H.B PIN  
(horizontal blue pin warp)



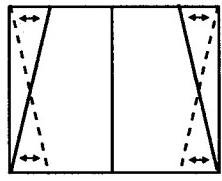
RV954 H.B SUB SKEW  
(horizontal blue sub skew)



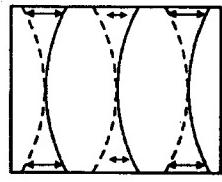
RV951 H.B SUB BOW  
(horizontal blue sub bow)



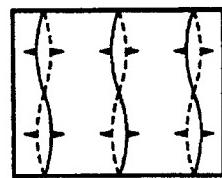
RV921 H.B SKEW  
(horizontal blue skew)



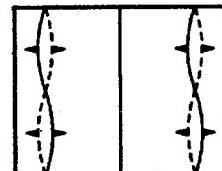
RV927 H.B KEYS  
(horizontal blue trapezoid)



RV933 H.B BOW  
(horizontal blue bow)



RV981  
※ Common in red,  
green, and blue



RV982  
※ Common in red,  
green, and blue

H/M PIN.....RV958

M.WAVE.....RV961

WAVE-A.....RV974

WAVE-U.....RV977

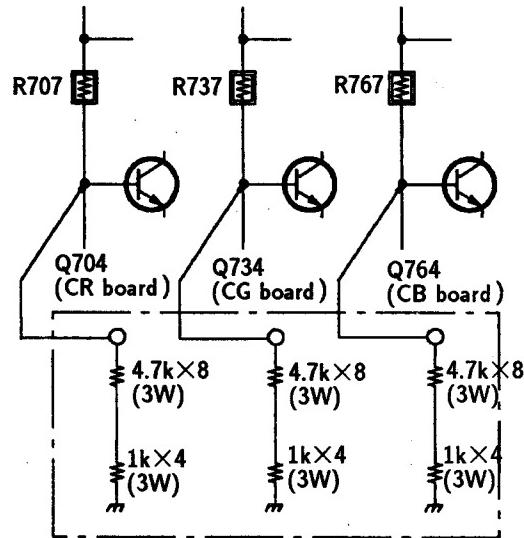
### 3-9. REGISTRATION CHECK

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

### 3-10. WHITE BALANCE ADJUSTMENTS

#### 1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.



※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

**2) White balance adjustments (SBRT, GAMP, BAMP,  
GCUT, BCUT)**

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

## SECTION 4

### SAFETY RELATED ADJUSTMENTS

#### 4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

- ..... HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

- ..... HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

- ..... ① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881
- ② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

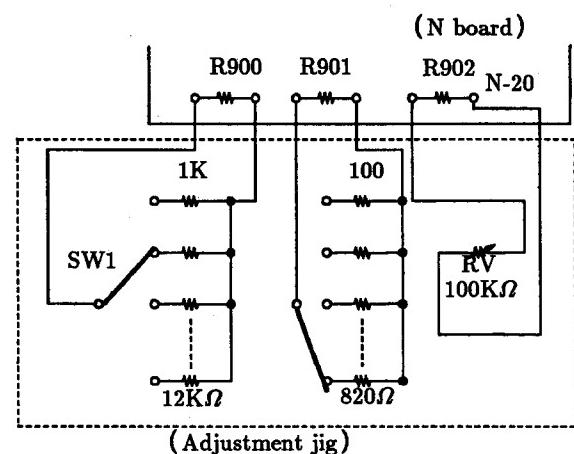
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

- ..... Q618, Q621, D628, C634, R639, R649, R652, R655, R656

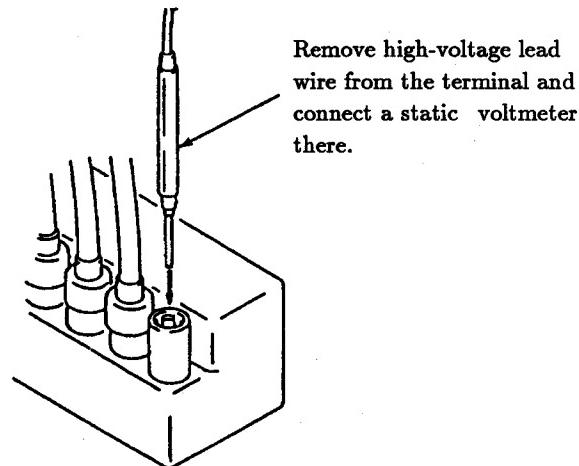
#### — Checking with static voltmeter —

#### HV HOLD DOWN ADJUSTMENTS ( R900, R901)

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N20 connector on the N board.



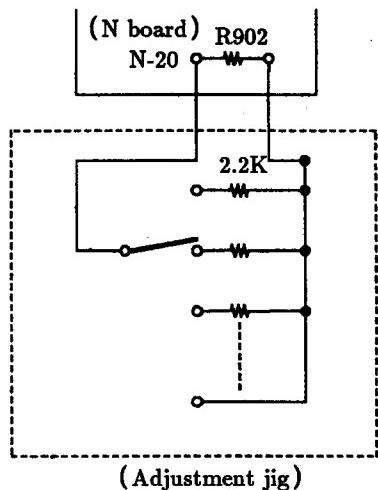
3. Connect an external variable resistor (RV) to R902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.



5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read  $33.50 \pm 0.50\text{kVDC}$ .
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.  
R900 : Must be  $1\text{k}\Omega$  to  $12\text{k}\Omega$   
R901 : Must be  $J_w 100\Omega$  to  $820\Omega$
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the rated value,  $33.50 \pm 0.50\text{kV}$ .

**HV REGULATOR ADJUSTMENTS (█R902)**

1. Connect the HV adjustment resistance jig to R902 of the N board.



2. Remove the red anode lead wire for the CRT tube from the high-voltage block and connect the static voltmeter instead.
3. Receive 120 VAC power voltage and monoscope pattern signal. Set PICTURE and BRIGHTNESS to the standard.
4. Turn on power. To adjust the resistance of R902 with the adjustment jig to read the rated value,  $31.50 \pm 0.50\text{kV}$ .
5. Receive all-white signal. Set BRIGHTNESS to the standard. Maximize PICTURE. Confirm that the rated value,  $31.50 \pm 0.50\text{kV}$  is read.
6. Cut off RGB by R OFF, G OFF, B OFF of the service commander. Verify that the rated value,  $31.50 \pm 0.50\text{kV}$ , is read.

**+B VOLTAGE CONFIRMATION**

1. Receive  $120 \pm 1$  VAC power voltage and monoscope pattern signal. Set BRIGHTNESS to standard and maximize PICTURE.
2. Connect a digital multimeter between the 115V line and the ground on the G board, and confirm that the rated value,  $115.0 \pm 3.0\text{V}$  is read.

**CHECKING AFTER REPLACING IC601**

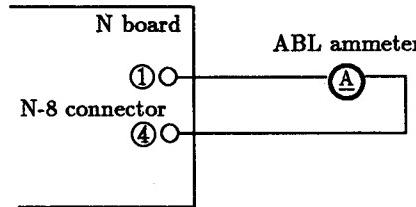
1. When replacing IC601, check the +B voltage.

**CHECKING THE OVP (overvoltage protection) CIRCUIT (█R652)**

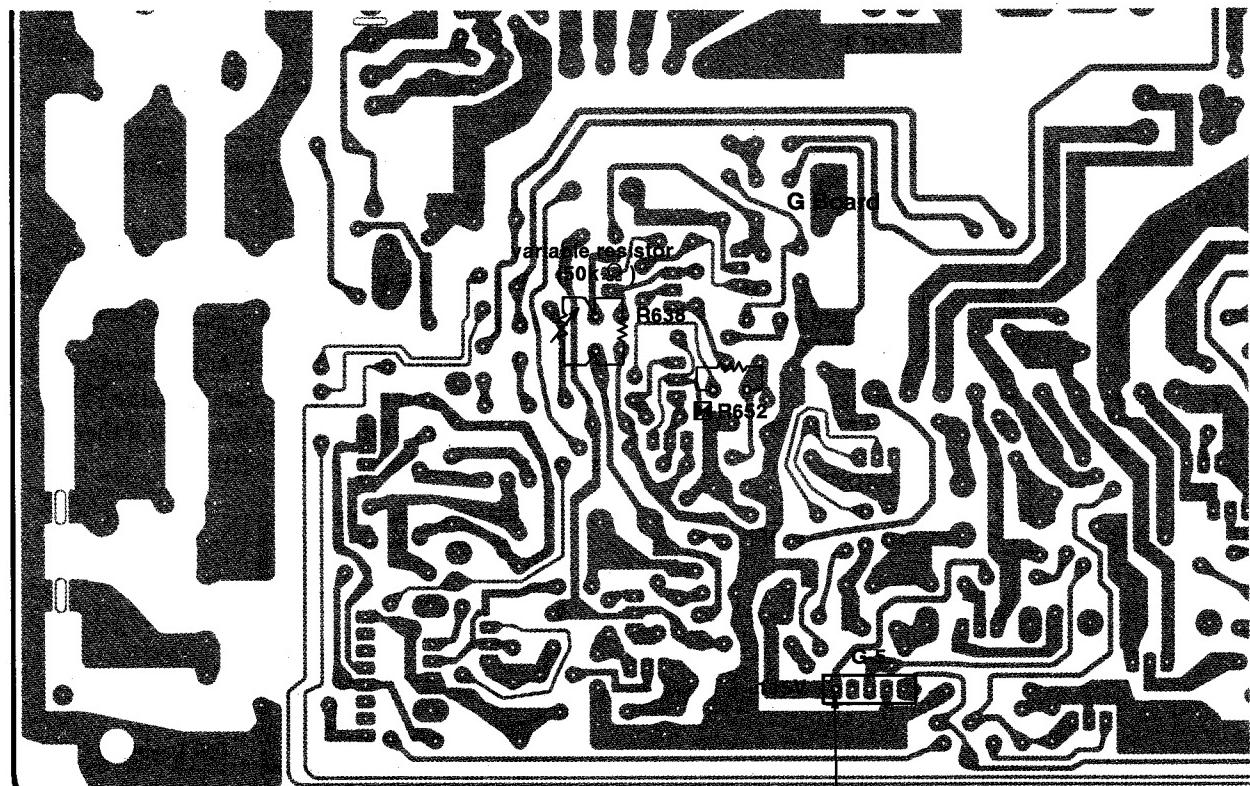
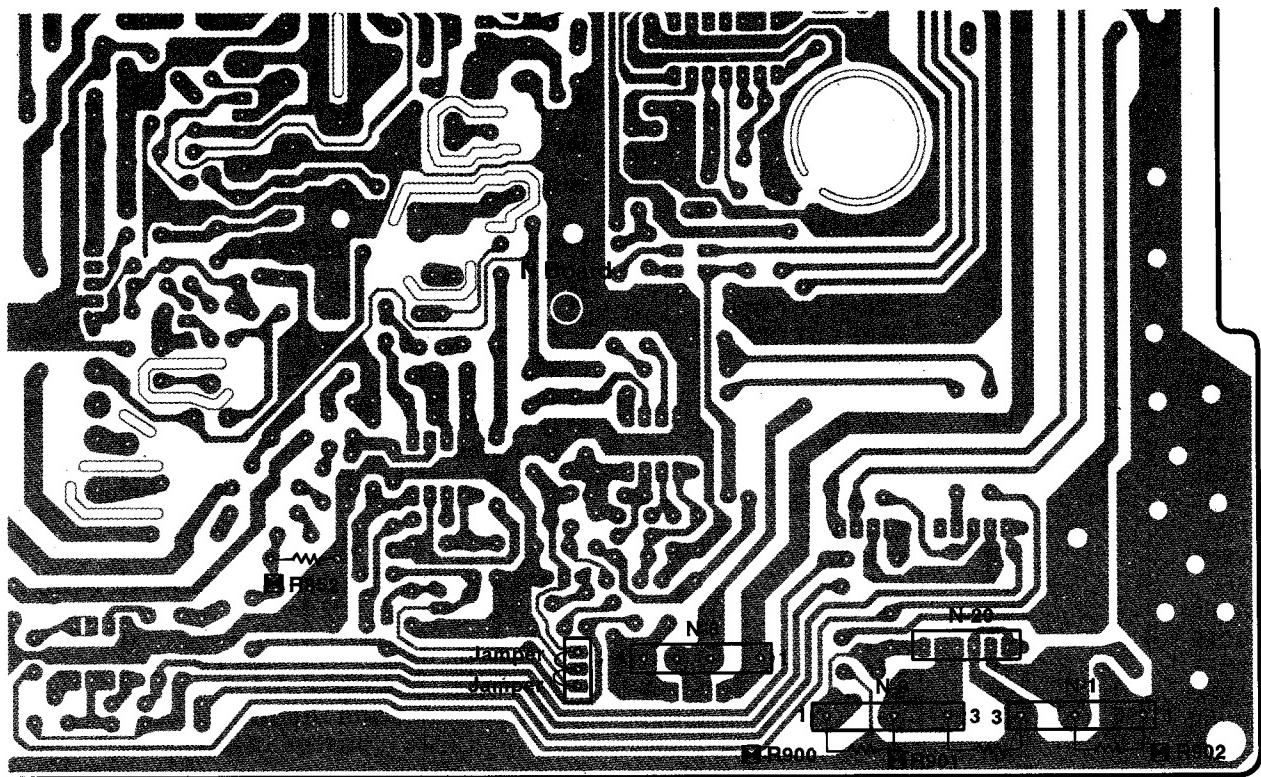
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R638 from the G board and connect a variable resistor (4.7 to  $10\text{k}\Omega$ ) instead.
3. Turn the variable resistor of  $10\text{k}\Omega$  and confirm that the OVP circuit is activated and luster disappears when +B voltage reads the rated value,  $125.0 \pm 5.0$  VDC.

**BEAM CURRENT PROTECTOR CHECK (█R852)**

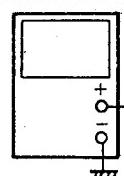
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize BRIGHTNESS.
2. Connect pin① and pin② of the N-21 connector. (on the N board)
3. Remove the jumper connector from the N-8 connector on the N board. Then connect an ABL ammeter between pin ① and pin ④ of the N-8 connector.



4. Raise PICTURE current gradually. Confirm that the beam current protector circuit is activated and luster disappears under the rated value,  $3400 \mu\text{A}$ .
5. Connect pin③ and pin② of the N-21 connector. Verify that the protector circuit is activated and luster disappears similarly.



digital multi-meter



— Checking without static voltmeter —

**HV HOLD DOWN ADJUSTMENT (R900, R901)**

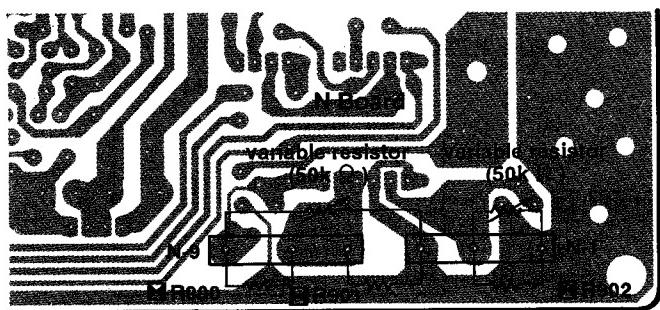
1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of  $50k\Omega$  on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of  $50k\Omega$  on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.

Note : Select fixed resistance from the following ranges.

R900 :  $1k\Omega$  to  $12k\Omega$

R901 :  $J_w 100\Omega$  to  $820\Omega$

8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads  $134 \pm 1.0V$ .

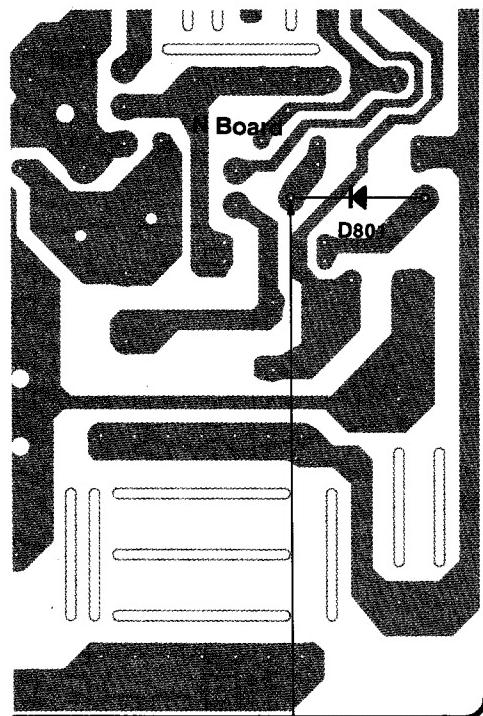


**HV REGULATOR ADJUSTMENT (R902)**

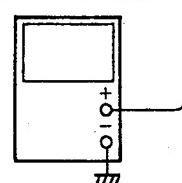
1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Connect a variable resistor of  $50k\Omega$  on each end of R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so that the digital multimeter reads  $135.0V \pm 1.0V$ .
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance to R902.

Note : R902 : Must be  $2.2k\Omega$  to  $27k\Omega$

7. Turn on power again. Confirm that the digital multimeter reads  $135.0V \pm 1.0V$ .



digital multi-meter



## SECTION 5

### CIRCUIT ADJUSTMENTS

#### 5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

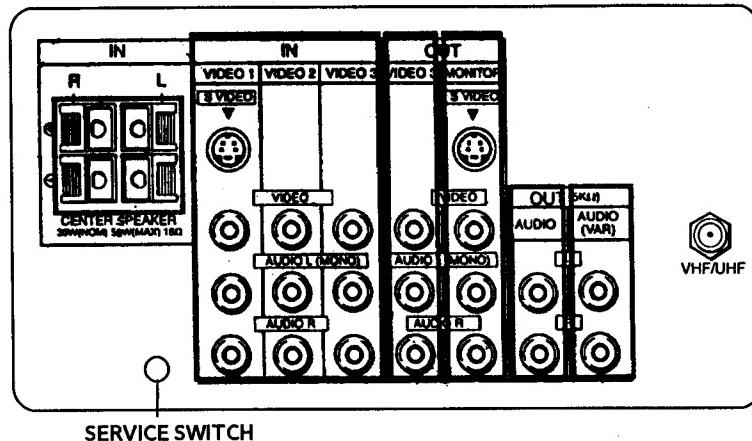
Use of Remote Commander (RM-Y112A) can be performed circuit adjustments about this model.

##### 1. METHOD OF SETTING THE SERVICE MODE

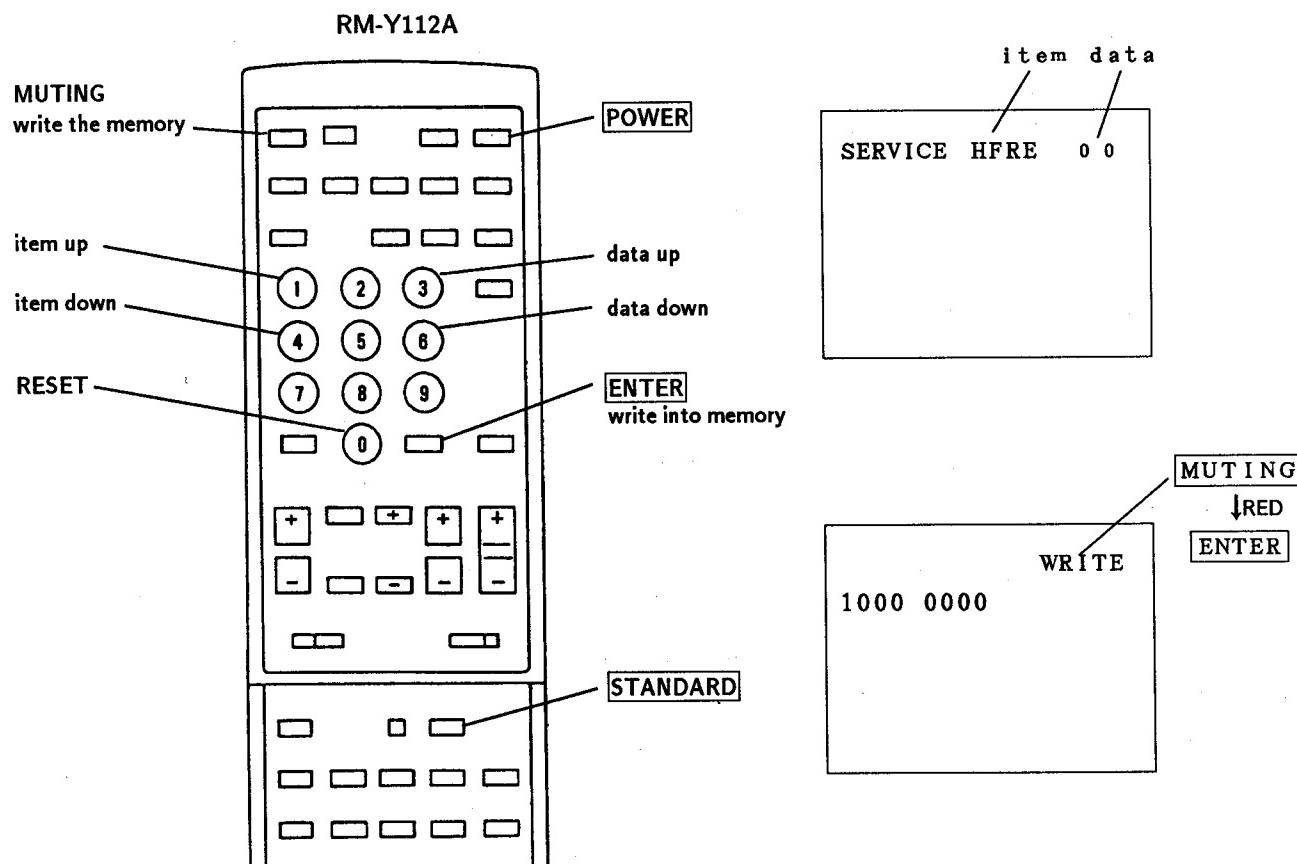
- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

**NOTE : Test Equipment Required.**

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC



##### 2. ADJUST BUTTONS AND INDICATOR



### 3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST
AFC	0	VP      AFC 1.0
HFRE	74	VP      H. FREQUENCE
VFRE	16	VP      V. FREQUENCE
HPOS	5	VP      H. PHASE
GAMP	25	VP      GREEN AMP.
BAMP	26	VP      BLUE AMP.
GCUT	9	VP      GREEN CUT OFF.
BCUT	6	VP      BLUE CUT OFF
SPIX	40	VP      PICTURE
SHUE	29	VP      HUE
SCOL	28	VP      COLOR
SBRT	11	VP      BRIGHT
RGBP	28	VP      RGB PICTURE
SHAR	13	VP      SHARPNESS
DISP	24	VP      OUTPUT
VSMO	0	VP      VS MO
REF	1	VP      REF 1.0
ROFF	1	VP      OFF NR
GOFF	1	VP      OFF NG
BOFF	1	VP      OFF NB
ABLM	0	VP      ABL M
DRGB	0	VP      D RGB
TEST	0	AP      T
MPX	7	AP      ATT
FILO	31	AP      I1
DEEM	7	AP      I2
STEV	31	AP      OSC 1
SAPV	31	AP      OSC 2
PILO	7	AP      PILOT
SEP	31	AP      WIDE BAND
VD	7	AP      SPECTRAL
LVOL	0	AP      VOLUME-L
RVOL	0	AP      VOLUME-R
BASS	8	AP      BASS
TRE	8	AP      TREBLE
PHPO	32	PI      READ DELAY H
PVPO	8	PI      READ DELAY V
PLEV	6	PI      PICTURE LEVEL
PFCO	7	PI      FRAME COLOR
PPLL	1	PI      PLLOF
PPVS	6	PI      VSPDEL
NRLE	31	PI      NR LEVEL
DSPP	43	
SHAD	1	PJ      SHADON
VMSW	1	PJ      RS HAD
SCUT	16	PJ      SHAD CUT OFF

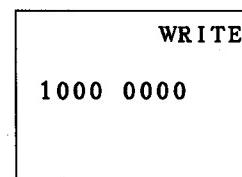
### 4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

### 5. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

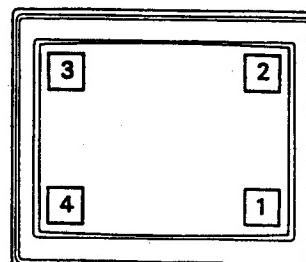
### 6. MEMORY WRITE CONFIRMATION METHOD



- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.

### 7. PUB PICTURE POSITION ADJUSTMENT (PHPO, PUPO)

Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.



PIP Positions

After making adjustments into the PIP 1 position, write the information into the ROM.

Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

## 5-2. A BOARD ADJUSTMENTS

### RF AGC ADJUSTMENT(IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

### H.FREQUENCY ADJUSTMENT (HFRE)

- 1) Set to Service Mode.
- 2) Input a color-bar signal.
- 3) Connect a frequency counter to pin③ of A-10 connector.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **[1]** and **[4]**.
- 6) Adjust **[3]** and **[6]** to the  $15735 \pm 60$  Hz level.
- 7) Call the item of AFC again, adjust the level "01".
- 8) Write into the memory by pressing **MUTING** → then **ENTER**.

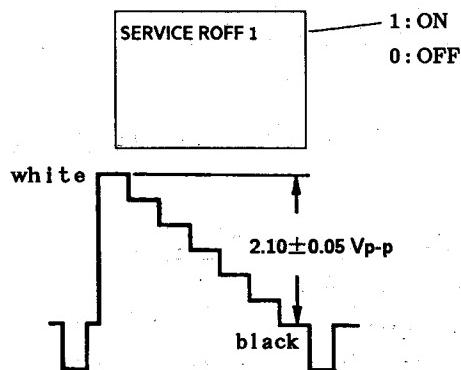
### V.FREQUENCY ADJUSTMENT (VFRE)

- 1) Set the Service Mode.
- 2) Input an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across connector ⑬pin of E 1-1 connector and ground.
- 4) Select VFRE with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the  $55 \pm 0.5$  Hz.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.

### SUB CONTRAST ADJUSTMENT (SPIX)

- 1) Set to Service Mode.
- 2) Input a color-bar signal. (75 IRE)
- 3) Set the conditions as follows.

PICTURE	..... MAX
COLOR	..... MIN
BRIGHTNESS	..... MIN
TRINITONE	..... LOW
R OFF	..... ON
G OFF	..... OFF
B OFF	..... OFF

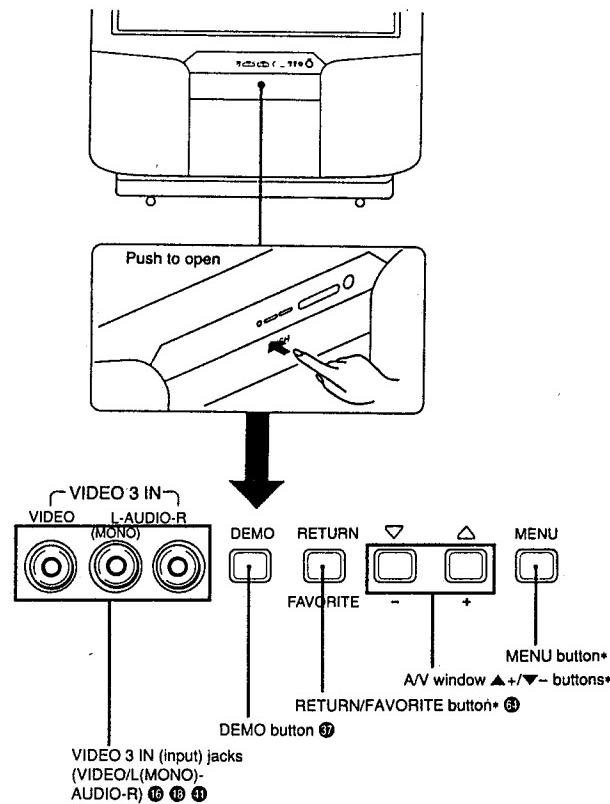


- 4) Connect an oscilloscope to ⑩pin of E1-1 connector on A board and ground.
- 5) Adjust **[3]** and **[6]** to the  $2.10 \pm 0.05$  Vp-p level by selecting SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.
- 7) Return the following back to normal after adjustment.

G OFF	..... ON
B OFF	..... ON
COLOR	..... CENTER
BRIGHTNESS	..... CENTER
TRINITONE	..... HIGH
PICTURE	..... 80%

## Locating Controls and Connectors

Front Inner panel

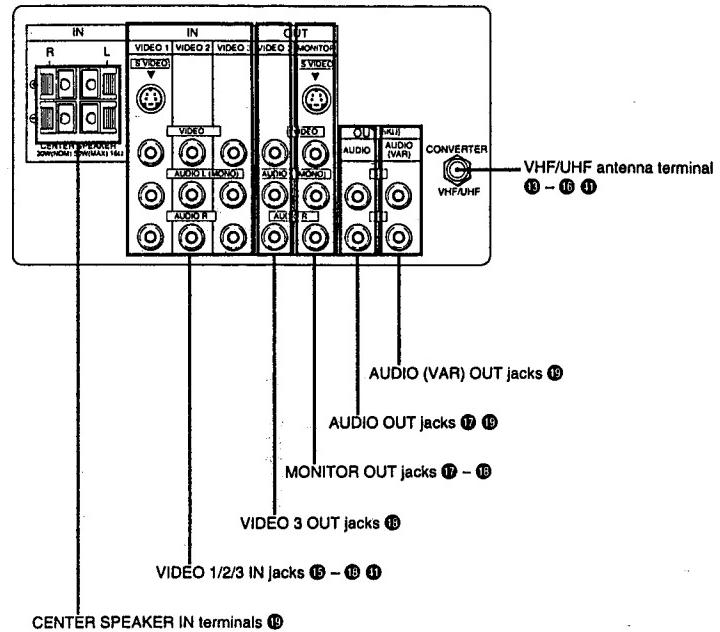


\* Buttons with the same function are also located on the Remote Commander (p. 10).

**Note**

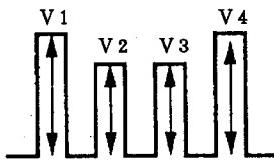
The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

Rear

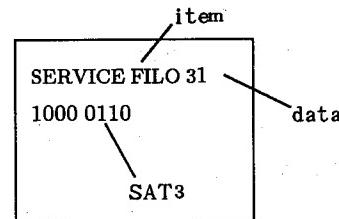


**SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)**

- 1) Input a color-bar signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Connect an oscilloscope to pin② of E1-1 connector on A board and ground.
- 5) Adjust **3** and **4** to the V1=V4 and V2=V3 by select to SHUE and SCOL with **1** and **4**. Lower the data 4 steps from this point.

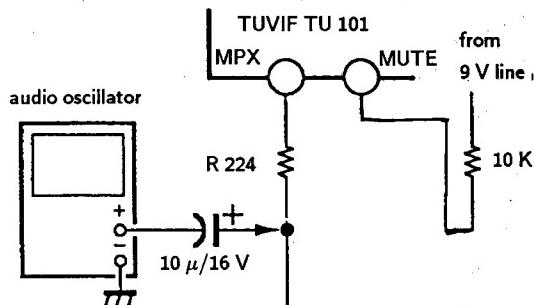


- 4) Make the data "00" by selecting FILO with **1** and **4**. And then, send up the data gradually by pressing **6**. Set the data to D1 before SAT3 changing to 1 from 0.
- 5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
- 6) Adjust the data of FILO to  $\frac{D_1 + D_2}{2}$ .
- 7) Write into the memory by pressing **MUTING** → then **ENTER**.

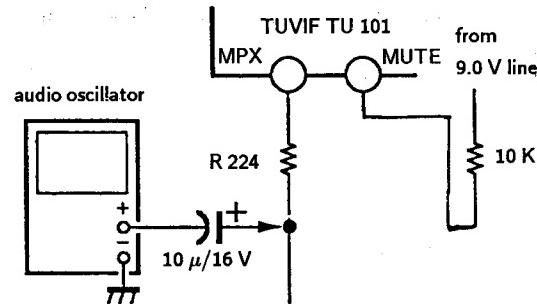


- 6) Write into the memory by pressing **MUTING** → then **ENTER**.
- ST VCO ADJUSTMENT (MPX, STEV)**

- 1) Set to Service Mode.
- 2) Select TEST with **1** and **4**, set the data to "1". And then press **MTS** to MONO.
- 3) Select MPX, set the data "8".
- 4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μF/16V) and apply the frequency Vst. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.

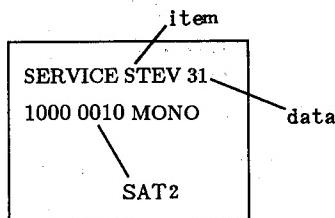


V 4 fh : SINE-WAVE 62.936 KHz ± 0.1 KHz  
LEVEL 3.0 Vp-p



Vfh : SINE-WAVE 15.734 KHz ± 0.1 KHz  
LEVEL 0.28 Vp-p

- 5) Select STEV with [1] and [4], set the data to "00" with [6]. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
- 6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to  $(D1+D2)/2$ .
- 8) Write into the memory by pressing **MUTING** → then **ENTER**.

**MPX IN LEVEL ADJUSTMENT (MPX)**

- 1) Set to Service Mode.
- 2) Select TEST with [1] and [4], set the data to "0" with [6]. And then press **MTS** to MONO.
- 3) Select MPX with [1] and [4], set the data to "8" with [3] and [6].
- 4) Write into the memory by pressing **MUTING** → then **ENTER**.

**PILOT CANCEL ADJUSTMENT (PILO)**

- 1) Set to the Service Mode.
- 2) Select PILO with [1] and [4], set the data to "08" with [3] and [6].
- 3) Write into the memory by pressing **MUTING** → then **ENTER**.

**SAP VCO f<sub>0</sub> ADJUSTMENT (SAPV)**

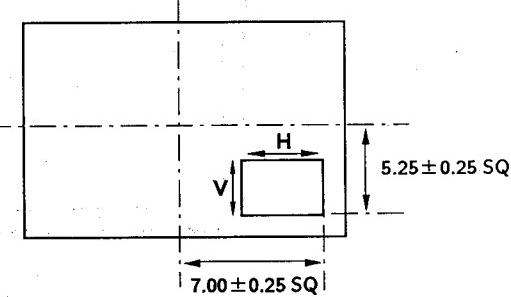
- 1) Set to Service Mode.
- 2) Input a stereo broadcast signal with SAP.
- 3) Select TEST with [1] and [4], set the data to "0" And then, press **MTS** to MAIN.
- 4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
- 5) Press MTS to SAP and this voltage will equal V 2.
- 6) Select SAPV with [1] and [4], adjust [3] and [6] so that  $V2 = V1 \pm 0.03$  VDC.
- 7) Write the memory by **MUTING** → **ENTER**.

**SEPARATION ADJUSTMENT (SEP)**

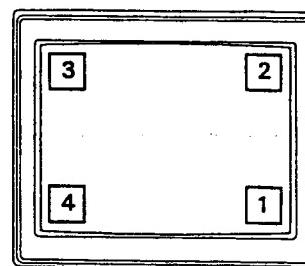
- 1) Set to Service Mode.
- 2) Press **MTS** to MAIN and receive a monoral broadcast signal.
- 3) Select SEP and VD with [1] and [4], adjust [3] and [6] so that a clear stereo sound is effected.

**SUB PICTURE POSITION ADJUSTMENT (PHPO, PVPO)**

- 1) Input a cross hatch signal.
- 2) Set to service mode.
- 3) Press PIP to display a sub picture. (RIGHT LOWER Position)
- 4) Select PHPO, PVPO with [1] and [4].
- 5) Adjust [3] and [6] to the standard as shown below.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.

**PUB PICTURE POSITION ADJUSTMENT (PHPO, PUPO)**

Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.



PIP Positions

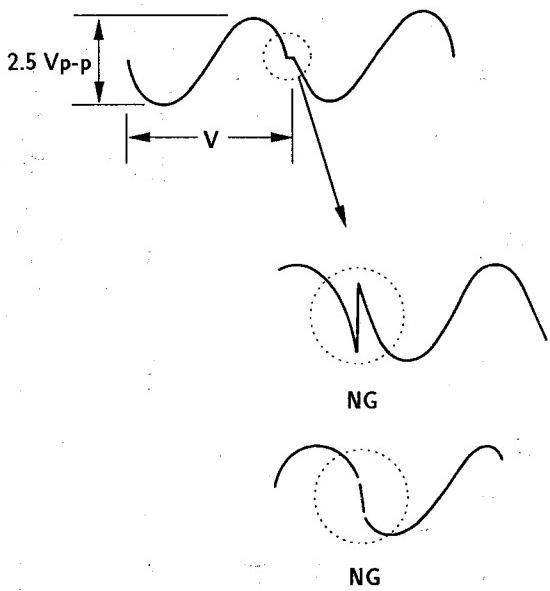
After making adjustments into the PIP 1 position, write the information into the ROM.

Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

### 5-3. DS BOARD ADJUSTMENTS

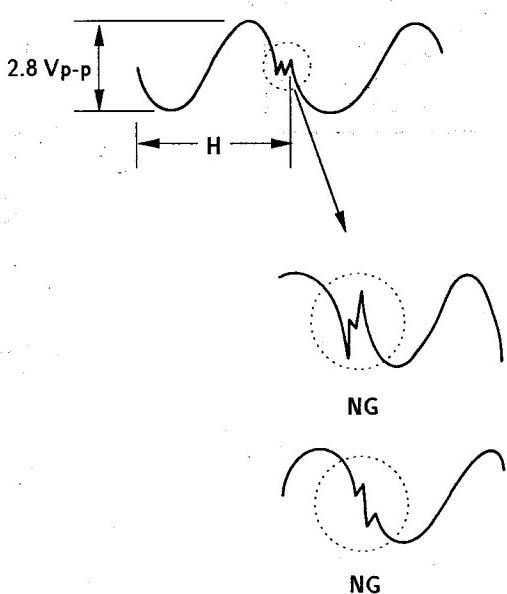
#### V. 3 WAVE ADJUSTMENT (RV983)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin⑦ of DS board ground.
- 3) Adjust RV983 as shown the following figure.

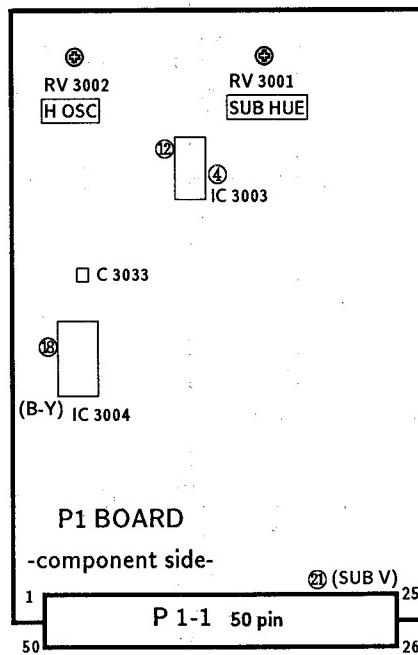


#### H. 3 WAVE ADJUSTMENT (RV984)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin① of DS board ground.
- 3) Adjust RV984 as shown the following figure.

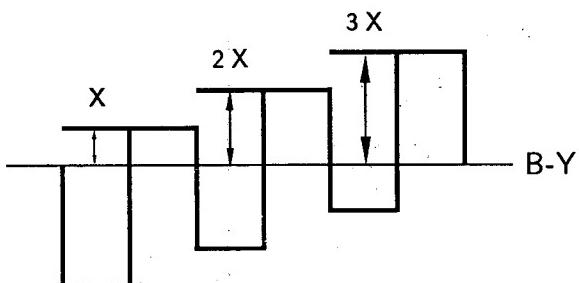


### 5-4. P1 BOARD ADJUSTMENTS



#### SUB HUE ADJUSTMENT (RV 3001)

- 1) Set HUE and COLOR to the standard condition.
- 2) Make adjustment so that B-Y signal as shown to the right is obtained at the crossing point of R 3009 ( $0\ \Omega$ ) and C 3033.
- 3) Supply the color bar signal of 75 IRE (white) at 2 Vpp to Pin 21 (SUB V) of P 1-1 and make adjustment by turning RV 3001.

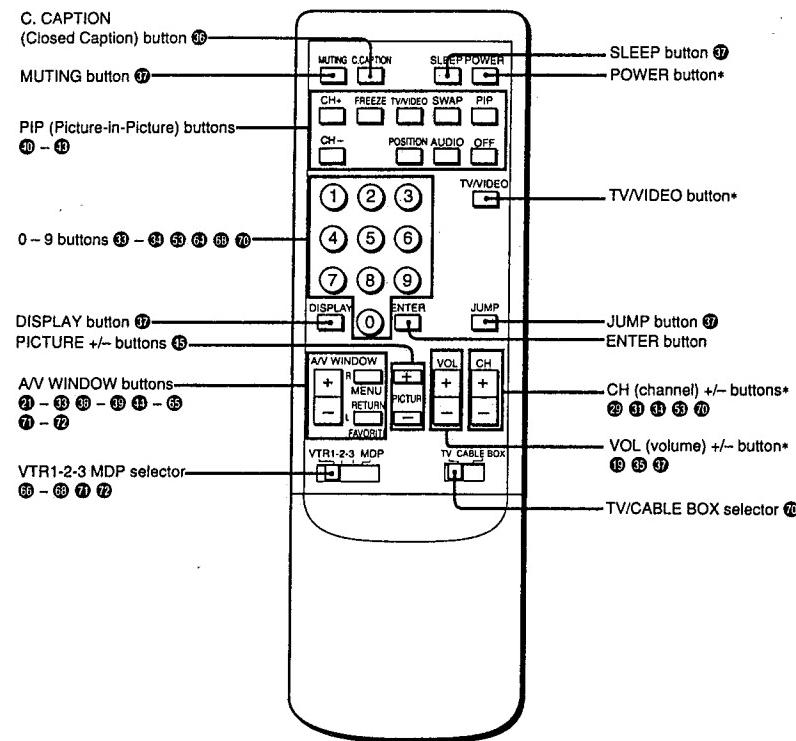


#### H. FREQUENCY (H OSC) ADJUSTMENT (RV-3002)

- 1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
- 2) Connect Pin ⑫ of IC 3003 to ground.
- 3) Adjust RV3002 for a frequency of 15.734 kHz  $\pm$  50 Hz at Pin ④ of IC 3003.  
(or until the frequency comes to a standstill.)

## **Locating Controls and Connectors**

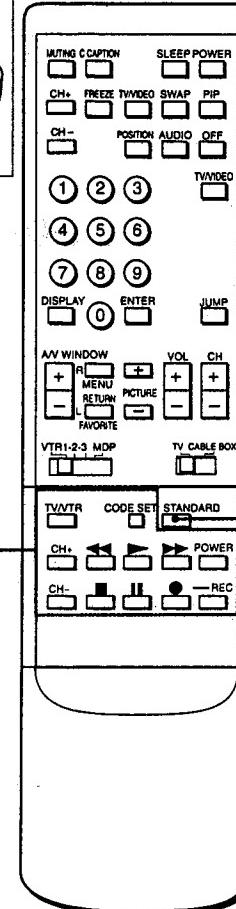
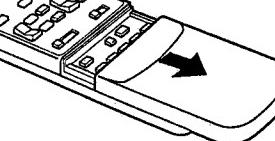
**Remote Commander RM-Y112A (with the video control cover closed)**



- \* Buttons with the same function are also located on the projection TV. (p. 7).

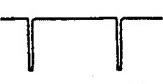
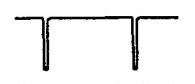
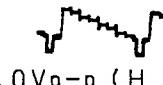
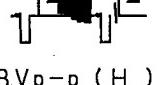
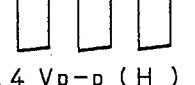
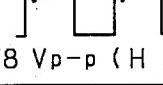
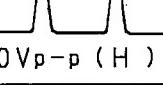
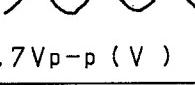
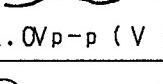
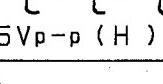
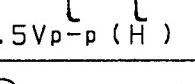
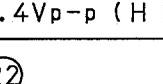
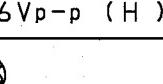
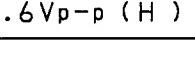
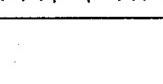
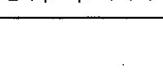
**Note**  
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 70). Set the selector to TV to control the projection TV with the Remote Commander.

#### **Remote Commander (with the video control cover open)**



Chapter 1: Setting Up | 11

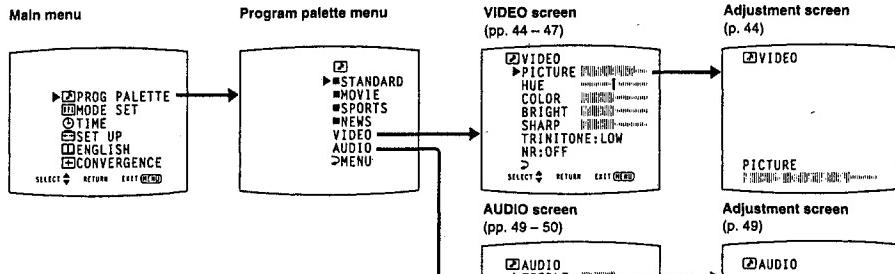
• A BOARD WAVEFORMS

①		1.2Vp-p (H)	②		1.2Vp-p (H)	③		2.5Vp-p (H)
④		2.0Vp-p (V)	⑤		2.0Vp-p (V)	⑥		2.0Vp-p (V)
⑦		1.8Vp-p (V)	⑧		1.0Vp-p (H)	⑨		1.2Vp-p (H)
⑩		1.0Vp-p (H)	⑪		0.8Vp-p (H)	⑫		1.4Vp-p (H)
⑬		58Vp-p (H)	⑭		450Vp-p (H)	⑮		0.7Vp-p (V)
⑯		12.0Vp-p (V)	⑰		1.5Vp-p (H)	⑱		1.5Vp-p (H)
⑲		1.4Vp-p (H)	⑳		1.6Vp-p (H)	㉑		1.6Vp-p (H)
㉒		1.4Vp-p (H)	㉓		1.5Vp-p (V)			

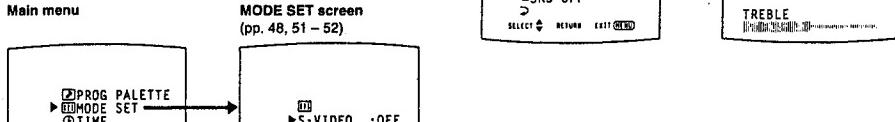
# Using the On-Screen Menus

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

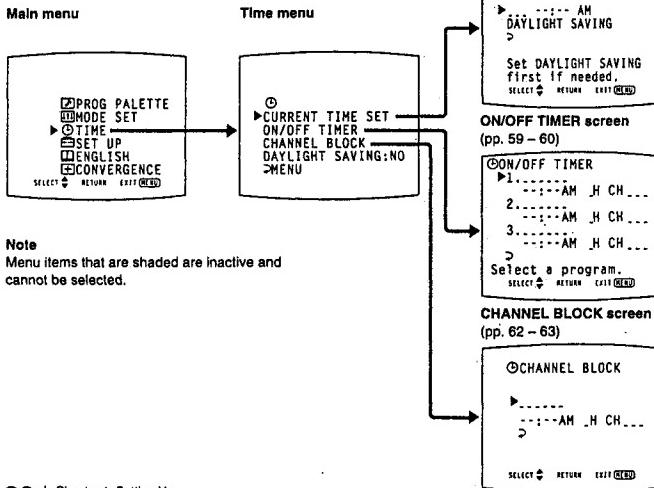
## For picture and sound quality adjustment



## For mode adjustment



## For time-related settings



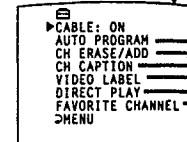
**Note**  
Menu items that are shaded are inactive and cannot be selected.

## For presetting and other functions

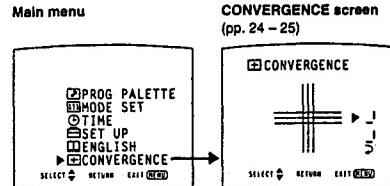
### Main menu



### SET UP screen

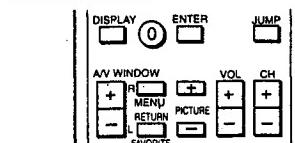


### For CONVERGENCE adjustment



### Navigating through the menus

#### Remote Commander



To display the main menu  
Press MENU.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "► MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
To return to the normal screen  
Press MENU.

**Note**  
The menus disappear automatically, if you do not press a button within 90 seconds.

**AUTO PROGRAM screen (p. 29)**

**CH (channel) ERASE/ADD screen (pp. 31, 33)**

**CH (channel) CAPTION screen (pp. 53 - 54)**

**VIDEO LABEL screen (p. 55)**

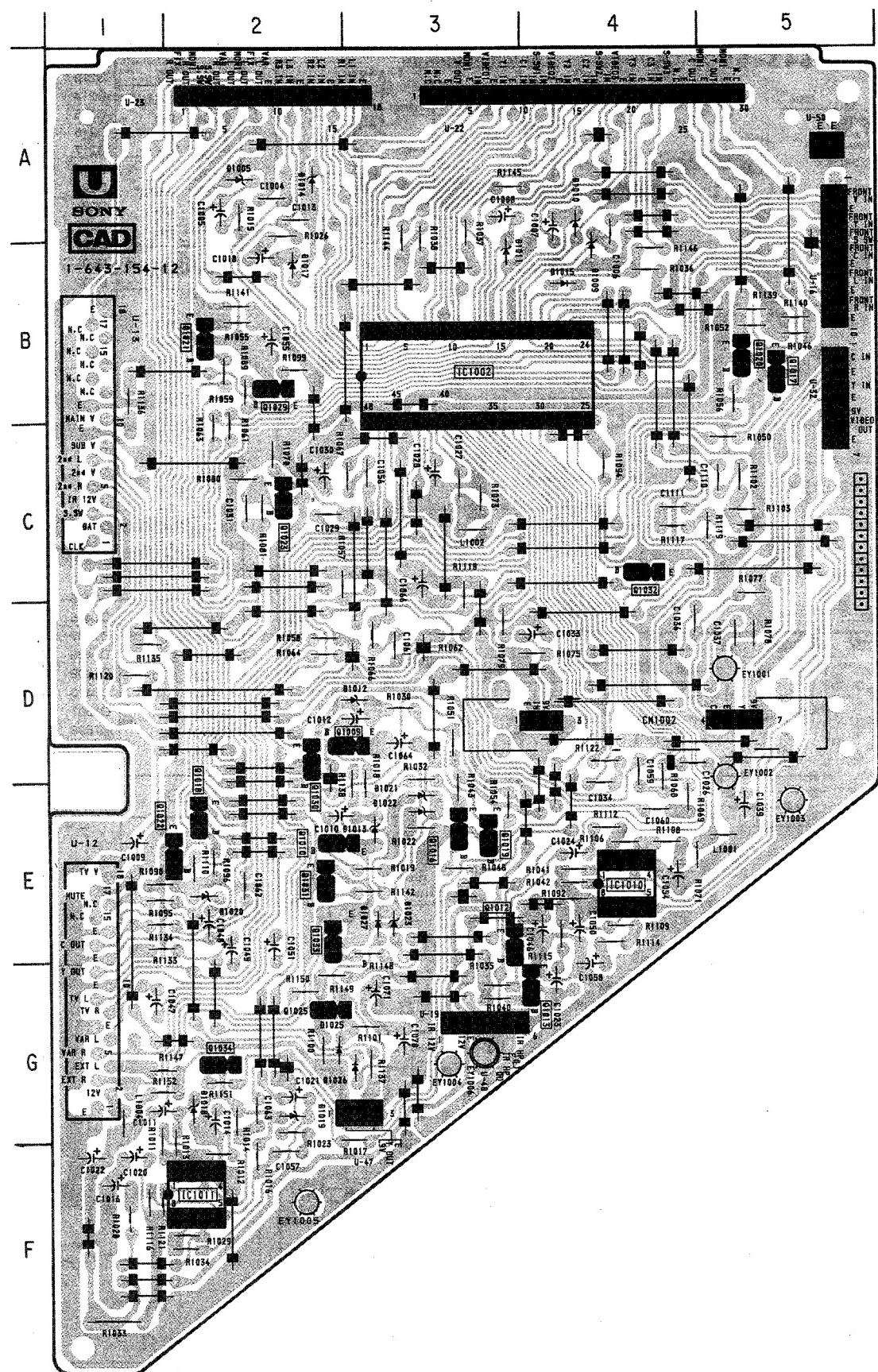
**DIRECT PLAY screen (pp. 71 - 72)**

**FAVORITE CHANNEL screen (pp. 64 - 65)**

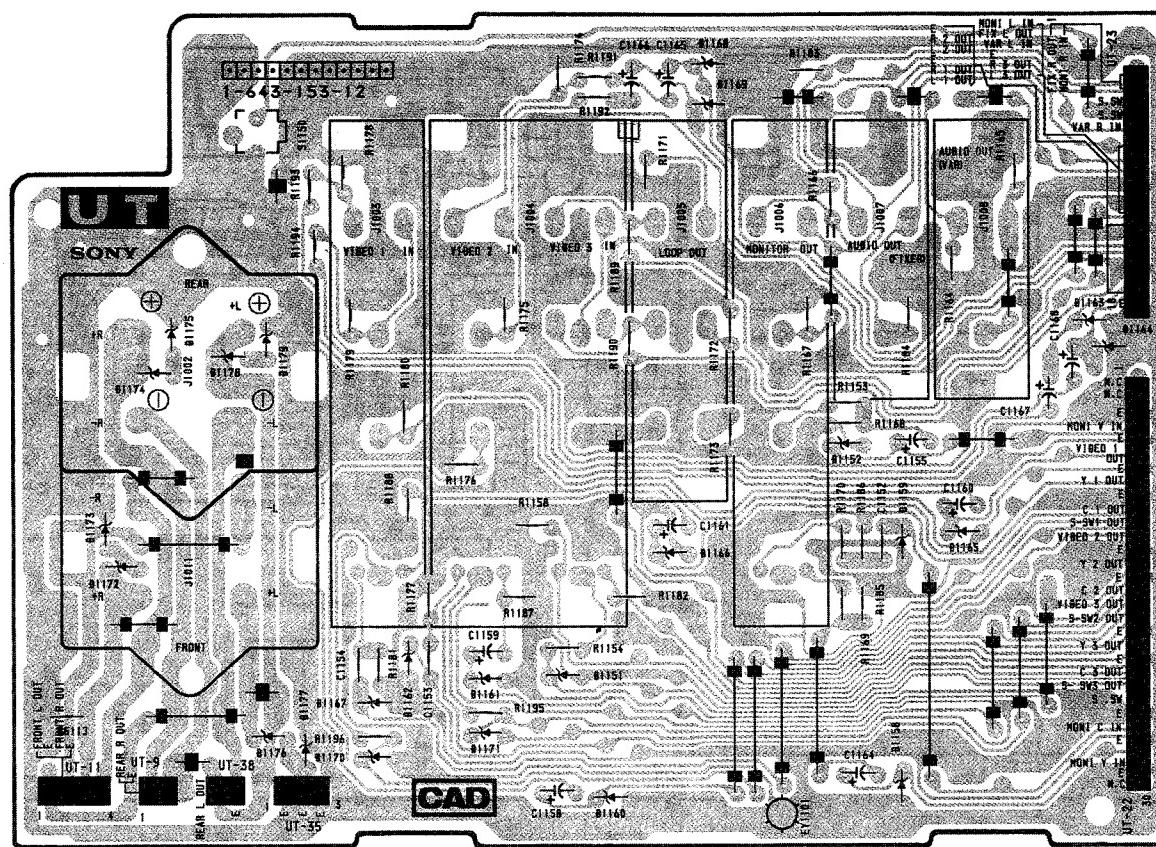
**U** [AUDIO IN/OUT]  
[VIDEO IN/OUT]      **UT** [IN/OUT TERMINAL]  
[SP. TERMINAL]

## — U BOARD —

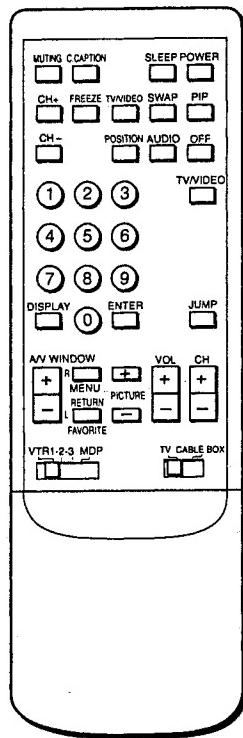
IC
IC1002 B-3
IC1011 F-2
TRANSISTOR
Q1009 D-2
Q1016 E-3
Q1017 B-5
Q1018 E-2
Q1019 E-3
Q1020 B-5
Q1021 B-2
Q1022 E-1
Q1023 C-2
Q1029 B-2
Q1030 D-2
Q1031 E-2
Q1032 C-4
Q1033 E-2
Q1034 G-2
DIODE
D1005 A-2
D1009 B-4
D1010 A-4
D1011 B-3
D1012 D-3
D1013 E-3
D1015 B-4
D1017 B-2
D1018 G-2
D1019 G-2
D1020 E-2
D1021 E-3
D1022 E-3



- UT BOARD -



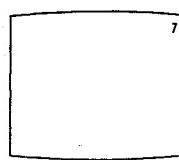
## Using the On-Screen Menus



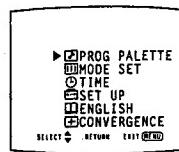
### Changing the menu language

The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

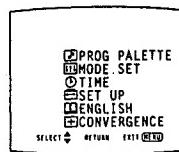
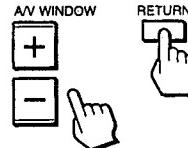
- Press POWER to turn on the projection TV. TIMER/STAND BY indicator blinks until the picture appears.



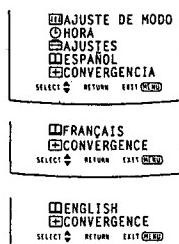
- Press MENU. The main menu appears.



- Press A/V WINDOW +/- until the cursor points to "ENGLISH." Then press RETURN. The language display turns red.



- Press A/V WINDOW +/- to select the language. Each time you press A/V WINDOW +/-, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.



**Note.**  
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

- Press RETURN. The language is selected.



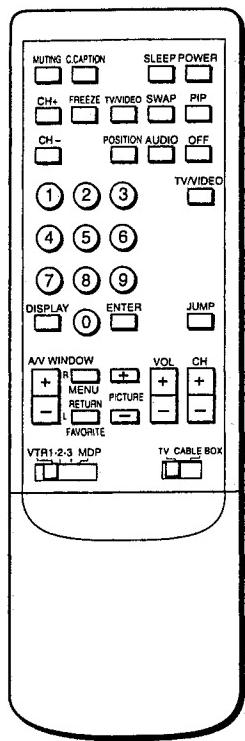
Spanish menu

To return to the normal screen, Press MENU.

### Notes concerning menus

- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- The menus disappear automatically, if you do not press a button within 90 seconds.

# Adjusting Color Registration (CONVERGENCE)

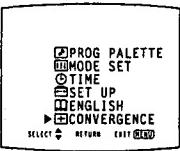
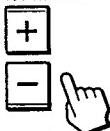


In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

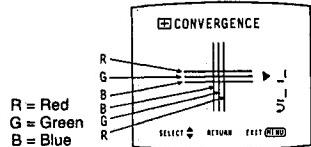
- 1** Press MENU.  
The main menu appears.



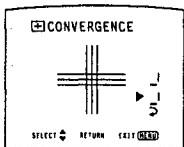
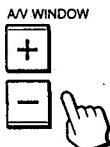
- 2** Press A/V WINDOW +/- until the cursor points to "CONVERGENCE."



- 3** Press RETURN.  
The CONVERGENCE screen and the colored adjustment lines appear.



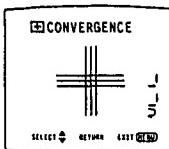
- 4** Press A/V WINDOW +/- until the cursor points to the symbol representing the line you want to adjust (see the key below).



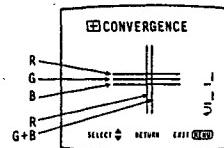
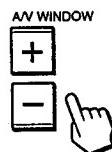
Adjustment line symbols key

- | (red vertical: left/right adjustment)
- (red horizontal: up/down adjustment)
- | (blue vertical: left/right adjustment)
- (blue horizontal: up/down adjustment)

- 5** Press RETURN.  
The adjustment line is selected.

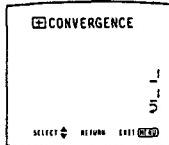


- 6** Press A/V WINDOW +/- until the line converges with the center green line. Then press RETURN.



To move up To move right	Press A/V WINDOW +.
To move down To move left	Press A/V WINDOW -.

- 7** Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.

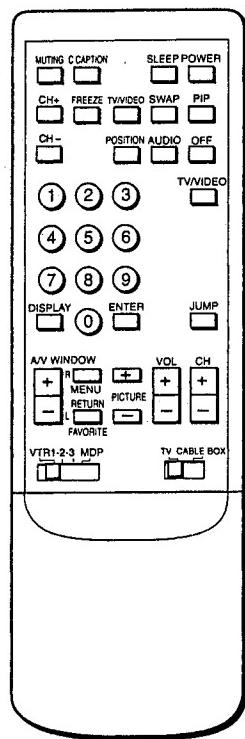


To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to " ▶ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

# Setting CABLE ON or OFF



If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

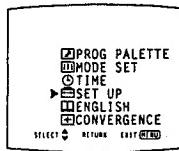
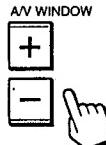
**Note**

If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.

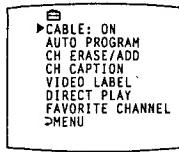
- 1** Press MENU.  
The main menu appears.



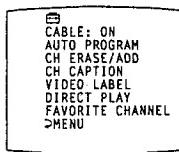
- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."



- 3** Press RETURN.  
The set up menu appears, and the cursor points to "CABLE."

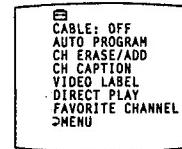
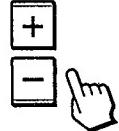


- 4** Press RETURN again.  
The mode display turns red.



- 5** Press A/V WINDOW +/- to select "ON" or "OFF."

A/V WINDOW



- 6** Press RETURN.  
The setting is complete.



To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to " > MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

## Cable TV channel chart\*

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

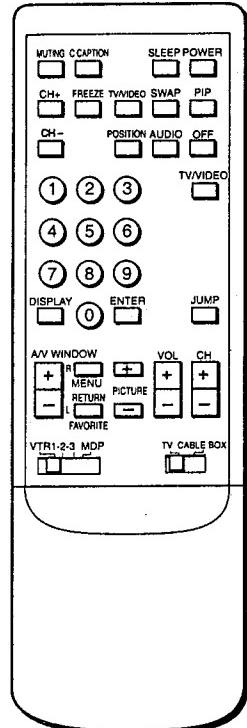
Number on this TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
•	•
•	•
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
•	•
•	•
123	W+82
124	W+83
125	W+84

Check with your local cable TV company for more complete information on the available channels.

\* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

# Presetting TV Channels

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/-.  
(You can select VHF channels 2 – 13 without presetting.)



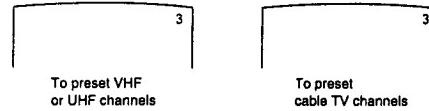
## Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

### Notes

- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

- 1** Set the cable connection on or off (pp. 26 – 27) to select the type of channel you want to preset, VHF/UHF or cable TV.



- 2** Press MENU.  
The main menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "SET UP."



- 4** Press RETURN.  
The set up menu appears.



- 5** Press A/V WINDOW +/- until the cursor points to "AUTO PROGRAM."

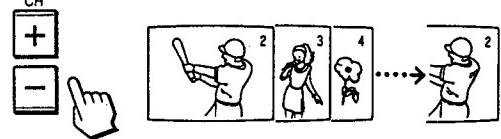


- 6** Press RETURN.



"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory.  
When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

- 7** Press CH +/- to check or view the preset channels.



## Receivable channels for this projection

TV  
VHF: 2 – 13  
UHF: 14 – 69  
Cable: 1 – 125

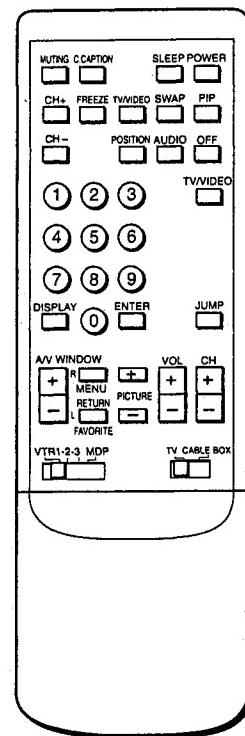
To select TV channels without presetting  
Press the 0 – 9 buttons and ENTER.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to " ▶ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

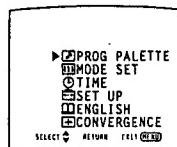
## Presetting TV Channels



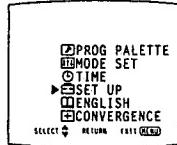
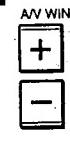
### Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/−, the channel(s) are skipped.

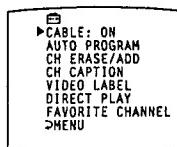
- 1** Press MENU  
The main menu appears.



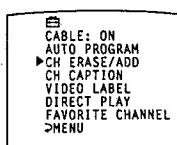
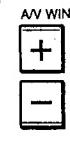
- 2** Press A/V WINDOW +/− until the cursor points to "SET UP."



- 3** Press RETURN  
The set up menu appears.



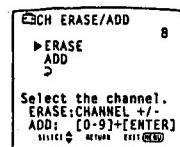
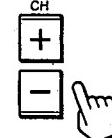
- 4** Press A/V WINDOW +/− until the cursor points to "CH ERASE/ADD."



- 5** Press RETURN.  
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."



- 6** Press CH +/− to select the channel you want to erase.  
The channel display appears.



- 7** Press RETURN.  
A “-” sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.



To erase another channel  
Repeat steps 6 – 7.

To return to the previous menu  
Press A/V WINDOW +/− until the cursor points to “> MENU.”  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

Note  
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).

## SECTION 7

### EXPLODED VIEWS

**NOTE:**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

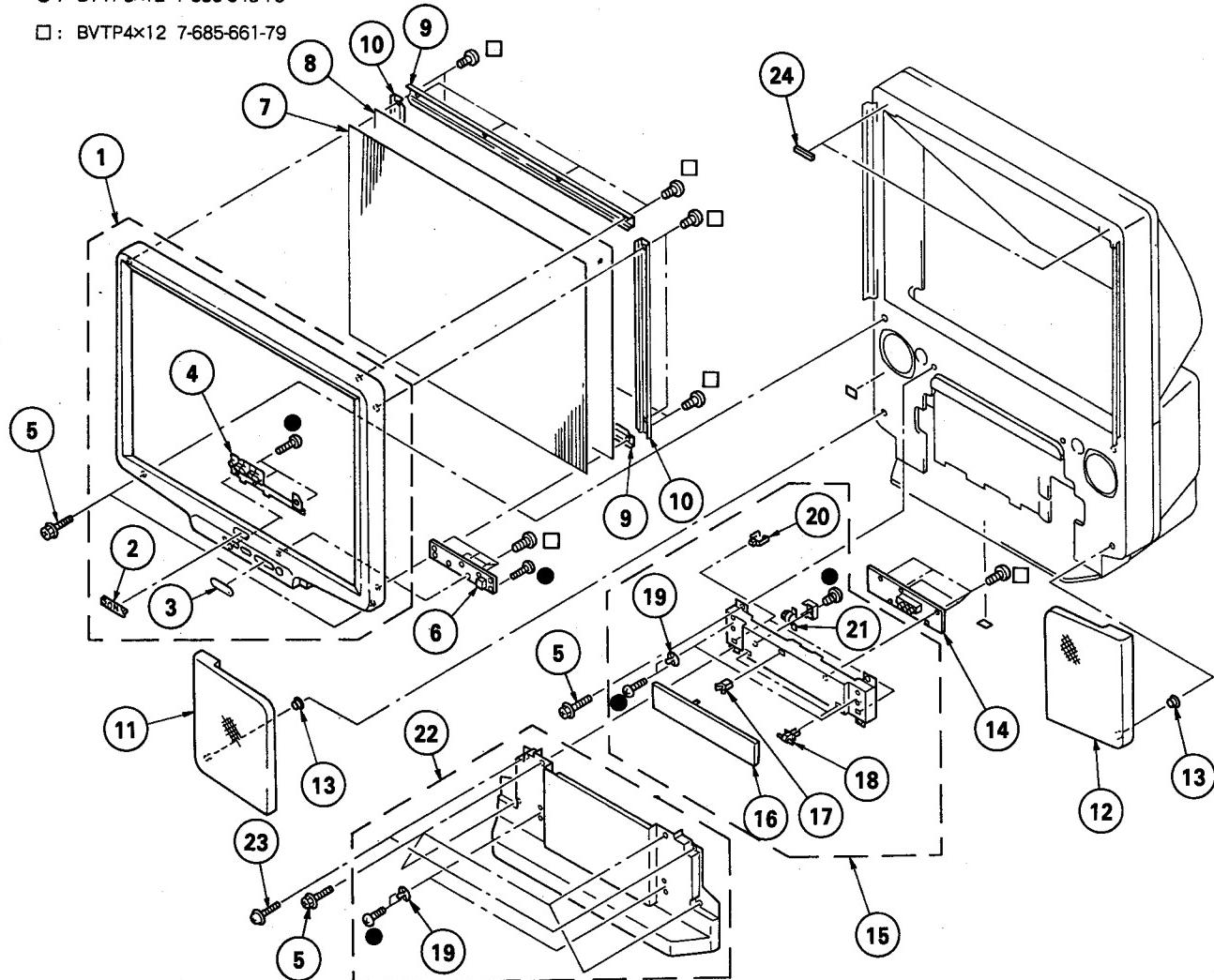
The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**7-1. SCREEN FRAME AND CONTROL PANEL**

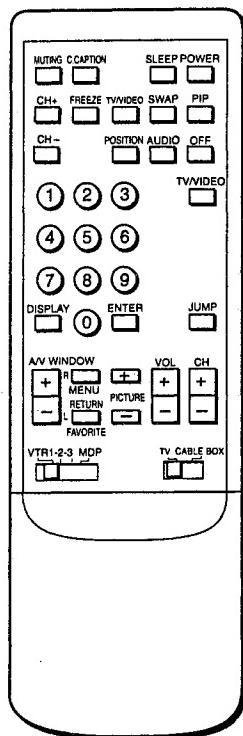
● : BVTP3×12 7-685-648-79

□ : BVTP4×12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4031-192-1	FRAME ASSY, SCREEN		13	4-838-438-00	LATCH	
2	3-704-179-01	EMBLEM (NO.9), SONY		14	*1-643-592-11	H2 BOARD	
3	4-036-087-21	COVER, INDICATOR		15	X-4030-354-4	PANEL ASSY, CONTROL	16~21
4	4-033-779-11	BUTTON, CONTROL		16	4-033-794-11	LID, FRONT	
5	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	2~4	17	4-374-714-01	CATCH, PUSH	
6	*1-643-591-11	H1 BOARD		18	3-703-035-11	SHAFT, LID	
7	4-034-053-01	PLATE (L), DIFFUSION		19	4-843-806-00	STRIKE	
8	4-036-520-01	PLATE (R), DIFFUSION		20	*4-314-320-00	HOLDER, WIRE	
9	4-036-091-01	HOLDER (L), SCREEN		21	3-721-204-01	DAMPER	
10	4-036-092-01	HOLDER (S), SCREEN		22	X-4030-347-1	COVER ASSY, FRONT	19
11	X-4030-346-1	GRILLE (L) ASSY, SPEAKER		23	4-304-851-11	SCREW (4X25), (+) PWH TAPPING	
12	X-4030-348-1	GRILLE (R) ASSY, SPEAKER		24	4-039-110-01	SPACER (CA)	

## Presetting TV Channels



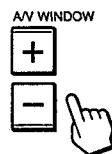
### Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 30 – 31).

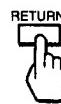
- 1** Press MENU  
The main menu appears.



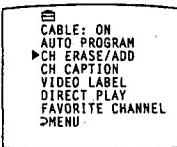
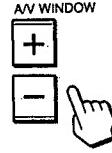
- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."



- 3** Press RETURN.  
The set up menu appears.



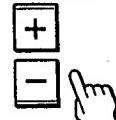
- 4** Press A/V WINDOW +/- until the cursor points to "CH ERASE/ADD."



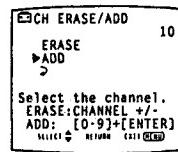
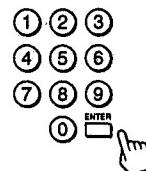
- 5** Press RETURN.  
The CH ERASE/ADD screen appears.



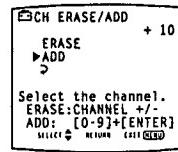
- 6** Press A/V WINDOW +/- until the cursor points to "ADD."



- 7** Press 0 – 9 and ENTER to select the channel you want to add.  
The channel display appears.

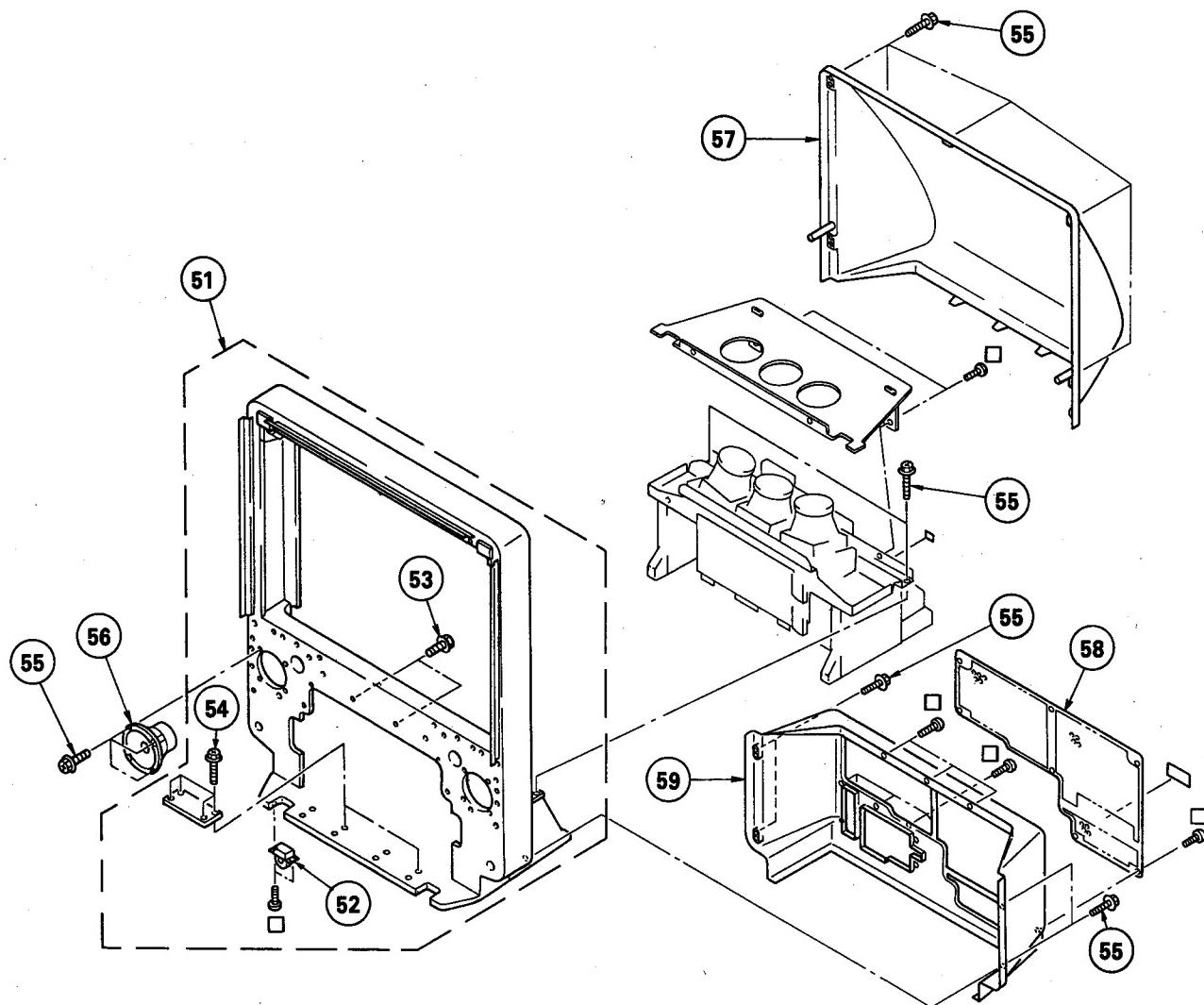


- 8** Press RETURN.  
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



**7-2.CABINET AND BACK COVER**

□ : BVTP4×12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	*X-4031-104-1 52 4-040-755-01	CABINET ASSY CASTER (DIA. 30)		52~54	56 1-544-768-11 57 4-036-136-01	SPEAKER (13CM) (COAXIAL) COVER, MIRROR	
53 4-378-522-01	SCREW, TAPPING, HEXAGON HEAD			58 4-036-527-01	59 X-4030-402-1	PLATE, REAR COVER ASSY, BACK	
54 4-378-522-21	SCREW, TAPPING, HEXAGON HEAD						
55 4-378-522-31	SCREW, TAPPING, HEXAGON HEAD						

SECTION 8  
ELECTRICAL PARTS LIST

A

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

• MF :  $\mu F$ , PF :  $\mu\mu F$  • MMH : mH, UH :  $\mu H$

- The components identified by  $\square$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK
	*A-1297-079-A	A BOARD, COMPLETE	*****		C226	1-124-120-11	ELECT	220MF	20% 16V
	4-382-854-11	SCREW (M3X10), P, SW (+)			C227	1-124-621-11	ELECT	3300MF	20% 6.3V
		<CONNECTOR>			C299	1-126-101-11	ELECT	100MF	20% 16V
A1	*1-564-514-11	PLUG, CONNECTOR 11P			C502	1-126-182-11	ELECT	0.47MF	20% 50V
A2	*1-564-512-11	PLUG, CONNECTOR 9P			C503	1-130-487-00	MYLAR	0.022MF	5% 50V
A3	*1-564-507-11	PLUG, CONNECTOR 4P			C504	1-136-153-00	FILM	0.01MF	5% 50V
A4	*1-564-508-11	PLUG, CONNECTOR 5P			C507	1-106-383-00	MYLAR	0.047MF	200V
A5	*1-564-511-11	PLUG, CONNECTOR 8P			C508	1-102-973-00	CERAMIC	100PF	5% 50V
					C509	1-102-030-00	CERAMIC	330PF	10% 500V
					C510	$\Delta$ -136-565-11	FILM	0.015MF	3% 1.4KV
					C512	$\Delta$ -136-598-11	FILM	3MF	5% 200V
A10	*1-564-511-41	PLUG, CONNECTOR 8P			C513	1-136-153-00	FILM	0.01MF	5% 50V
A11	*1-564-511-31	PLUG, CONNECTOR 8P			C514	1-124-477-11	ELECT	47MF	20% 16V
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			C522	1-123-024-21	ELECT	33MF	160V
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			C523	1-106-383-00	MYLAR	0.047MF	200V
A14	*1-564-513-31	PLUG, CONNECTOR 10P			C528	1-124-662-11	ELECT	220MF	20% 50V
A15	*1-564-508-11	PLUG, CONNECTOR 5P			C534	1-124-011-00	ELECT	220MF	20% 16V
A16	*1-564-508-11	PLUG, CONNECTOR 5P			C535	1-124-011-00	ELECT	220MF	20% 16V
A17	*1-564-508-11	PLUG, CONNECTOR 5P			C536	1-124-662-11	ELECT	220MF	20% 50V
A18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			C537	1-124-662-11	ELECT	220MF	20% 50V
A19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			C539	1-124-907-11	ELECT	10MF	20% 50V
A20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			C542	1-136-153-00	FILM	0.01MF	5% 50V
A21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			C543	1-136-153-00	FILM	0.01MF	5% 50V
A22	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			C544	1-136-153-00	FILM	0.01MF	5% 50V
A25	*1-564-506-11	PLUG, CONNECTOR 3P			C545	1-136-153-00	FILM	0.01MF	5% 50V
A27	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P			C569	1-126-355-11	ELECT	33MF	20% 160V
A56	*1-564-508-11	PLUG, CONNECTOR 5P			C1401	1-124-910-11	ELECT	47MF	20% 50V
		<CAPACITOR>			C1402	1-126-157-11	ELECT	10MF	20% 16V
C201	1-124-910-11	ELECT	47MF	20% 50V	C1403	1-126-157-11	ELECT	10MF	20% 16V
C202	1-124-903-11	ELECT	1MF	20% 50V	C1404	1-126-157-11	ELECT	10MF	20% 16V
C203	1-130-495-00	MYLAR	0.1MF	5% 50V	C1405	1-124-910-11	ELECT	47MF	20% 50V
C204	1-124-477-11	ELECT	47MF	20% 16V	C1406	1-126-101-11	ELECT	100MF	20% 16V
C205	1-124-557-11	ELECT	1000MF	20% 25V	C1407	1-126-057-11	ELECT	2200MF	20% 50V
C206	1-126-101-11	ELECT	100MF	20% 16V	C1408	1-136-165-00	FILM	0.1MF	5% 50V
C207	1-124-242-00	ELECT	33MF	20% 16V	C1409	1-136-165-00	FILM	0.1MF	5% 50V
C210	1-102-121-00	CERAMIC	0.0022MF	10% 50V	C1413	1-124-234-00	ELECT	22MF	20% 16V
C212	1-126-803-11	ELECT	47MF	20% 16V	C1424	1-126-057-11	ELECT	2200MF	20% 50V
C213	1-126-103-11	ELECT	470MF	20% 16V	C1425	1-126-057-11	ELECT	2200MF	20% 50V
C214	1-126-101-11	ELECT	100MF	20% 16V	C1426	1-126-157-11	ELECT	10MF	20% 16V
C215	1-126-803-11	ELECT	47MF	20% 50V	C1429	1-126-101-11	ELECT	100MF	20% 16V
C216	1-126-101-11	ELECT	100MF	20% 16V	C1430	1-126-101-11	ELECT	100MF	20% 16V
C217	1-126-803-11	ELECT	47MF	20% 25V	C1431	1-124-916-11	ELECT	22MF	20% 50V
C218	1-126-103-11	ELECT	470MF	20% 16V	C1435	1-124-916-11	ELECT	22MF	20% 25V
C219	1-124-443-00	ELECT	100MF	20% 10V	C1440	1-126-336-11	ELECT	220MF	20% 25V
C220	1-126-803-11	ELECT	47MF	20% 25V	C1601	1-130-483-00	MYLAR	0.01MF	5% 50V
C223	1-126-803-11	ELECT	47MF	20% 25V	C1603	1-136-153-00	FILM	0.01MF	5% 50V
C224	1-124-261-00	ELECT	10MF	20% 50V	C1607	1-124-907-11	ELECT	10MF	20% 50V
C225	1-124-120-11	ELECT	220MF	20% 16V	C1608	1-136-153-00	FILM	0.01MF	5% 50V
					C1609	1-136-153-00	FILM	0.01MF	5% 50V
					C1610	1-124-916-11	ELECT	22MF	20% 50V

A

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;DIODE&gt;</b>											
D203	8-719-911-19	DIODE 1SS119		L502	1-459-313-00	COIL WITH CORE (HWC)					
D204	8-719-911-19	DIODE 1SS119		L515	1-410-645-31	INDUCTOR 100UH					
<b>&lt;TRANSISTOR&gt;</b>											
D205	8-719-110-36	DIODE RD13BS-B2		Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D206	8-719-911-19	DIODE 1SS119		Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D207	8-719-911-19	DIODE 1SS119		Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D208	8-719-911-19	DIODE 1SS119		Q501	8-729-119-80	TRANSISTOR 2SC2688-LK					
D209	8-719-911-19	DIODE 1SS119		Q502	8-729-014-88	TRANSISTOR 2SC4891-CA					
D211	8-719-110-36	DIODE RD13BS-B2		Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D213	8-719-110-78	DIODE RD33BS-B2		Q505	8-729-201-32	TRANSISTOR 2SA1013-0					
D214	8-719-911-19	DIODE 1SS119		Q506	8-729-201-32	TRANSISTOR 2SA1013-0					
D215	8-719-911-19	DIODE 1SS119		Q507	8-729-304-92	TRANSISTOR 2SB649A-C					
D216	8-719-911-19	DIODE 1SS119		Q508	8-729-204-16	TRANSISTOR 2SA1301-0					
D217	8-719-911-19	DIODE 1SS119		Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D219	8-719-911-19	DIODE 1SS119		Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D220	8-719-510-48	DIODE D1N20R		Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D221	8-719-911-19	DIODE 1SS119		Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D222	8-719-911-19	DIODE 1SS119		Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D223	8-719-911-19	DIODE 1SS119		Q1402	8-729-900-63	TRANSISTOR DTA124ES					
D501	8-719-971-20	DIODE ERC38-06		Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D502	8-719-971-20	DIODE ERC38-06		Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D503	8-719-300-80	DIODE RU-1C		Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D504	8-719-109-88	DIODE RD5.6BS-B1		Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D505	8-719-900-95	DIODE V09G		Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D506	8-719-900-95	DIODE V09G		Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D507	8-719-970-89	DIODE DD50R		Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D509	8-719-911-19	DIODE 1SS119		Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D510	8-719-109-71	DIODE RD3.9ES-B1		Q1620	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D511	8-719-911-19	DIODE 1SS119		<b>&lt;RESISTOR&gt;</b>							
D512	8-719-911-19	DIODE 1SS119		R203	1-249-425-11	CARBON	4.7K	5%	1/4W		
D513	8-719-911-19	DIODE 1SS119		R204	1-249-441-11	CARBON	100K	5%	1/4W		
D514	8-719-911-19	DIODE 1SS119		R214	1-249-429-11	CARBON	10K	5%	1/4W		
D515	8-719-911-19	DIODE 1SS119		R215	1-249-437-11	CARBON	47K	5%	1/4W		
D1401	8-719-911-19	DIODE 1SS119		R216	1-249-377-11	CARBON	0.47	5%	1/4W	F	
D1402	8-719-911-19	DIODE 1SS119		R219	1-249-426-11	CARBON	5.6K	5%	1/4W		
D1403	8-719-911-19	DIODE 1SS119		R221	1-249-409-11	CARBON	220	5%	1/4W		
D1404	8-719-110-88	DIODE RD39ES-B2		R222	1-249-436-11	CARBON	39K	5%	1/4W		
D1405	8-719-110-88	DIODE RD39ES-B2		R223	1-249-434-11	CARBON	27K	5%	1/4W		
D1406	8-719-911-19	DIODE 1SS119		R224	1-249-409-11	CARBON	220	5%	1/4W		
D1407	8-719-110-88	DIODE RD39ES-B2		R225	1-249-417-11	CARBON	1K	5%	1/4W		
D1408	8-719-911-19	DIODE 1SS119		R229	1-216-488-11	METAL OXIDE	18K	5%	3W	F	
D1409	8-719-110-88	DIODE RD39ES-B2		R231	1-249-409-91	CARBON	220	5%	1/4W		
D1607	8-719-911-19	DIODE 1SS119		R232	1-215-906-11	METAL OXIDE	15	5%	3W	F	
D1608	8-719-911-19	DIODE 1SS119		R233	1-249-409-11	CARBON	220	5%	1/4W		
<b>&lt;IC&gt;</b>											
IC201	8-749-920-58	IC SI-3090CA		R234	1-249-409-11	CARBON	220	5%	1/4W		
IC204	8-759-171-05	IC UPC7805H		R235	1-249-409-11	CARBON	220	5%	1/4W		
IC205	8-759-144-82	IC UPC2405HF		R236	1-249-409-11	CARBON	220	5%	1/4W		
IC206	8-759-231-58	IC TA7812S		R237	1-249-409-11	CARBON	220	5%	1/4W		
IC207	8-749-920-58	IC SI-3090CA		R238	1-249-409-11	CARBON	220	5%	1/4W		
IC506	8-752-057-18	IC CXA1315P		R239	1-249-409-11	CARBON	220	5%	1/4W		
IC1401	8-759-246-70	IC TA8216H		R240	1-215-906-11	METAL OXIDE	15	5%	3W	F	
IC1601	8-752-058-71	IC CXA1656S		R241	1-249-401-11	CARBON	47	5%	1/4W		
<b>&lt;COIL&gt;</b>											
L201	1-408-429-00	INDUCTOR	470UH	R242	1-215-906-11	METAL OXIDE	15	5%	3W	F	
L205	1-410-645-31	INDUCTOR	100UH	R243	1-217-294-00	WIREWOUND	4.7	10%	5W	F	
L206	1-408-416-00	INDUCTOR	39UH	R244	1-207-676-00	WIREWOUND	6.8	10%	5W	F	
L212	1-410-312-11	INDUCTOR	0.22UH	R296	1-249-417-11	CARBON	1K	5%	1/4W		
L501 A 1-460-196-11	COIL, HORIZONTAL LINEARITY			R501	1-247-895-00	CARBON	470K	5%	1/4W		
				R502	1-249-377-11	CARBON	0.47	5%	1/4W	F	
				R503	1-249-377-11	CARBON	0.47	5%	1/4W	F	
				R504	1-249-417-11	CARBON	1K	5%	1/4W		

The components identified by shading and mark  are critical for safety.  
Replace only with part number

**Les composants identifies par une trame et une marque  $\Delta$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

A P1

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK	
R505	1-249-423-11	CARBON	3.3K	5%	1/4W		R1443	1-215-410-00	METAL	360	1%	1/4W		
R506	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F	R1520	1-249-429-11	CARBON	10K	5%	1/4W		
R507	1-249-429-11	CARBON	10K	5%	1/4W	F	R1601	1-249-423-11	CARBON	3.3K	5%	1/4W		
R508	1-216-373-11	METAL OXIDE	2.2	5%	2W	F	R1602	1-249-417-11	CARBON	1K	5%	1/4W		
R509	1-216-478-11	METAL OXIDE	390	5%	3W	F	R1603	1-249-423-11	CARBON	3.3K	5%	1/4W		
R511	1-249-407-11	CARBON	150	5%	1/4W	F	R1604	1-249-405-11	CARBON	100	5%	1/4W		
R512	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R1605	1-249-405-11	CARBON	100	5%	1/4W		
R513	1-249-417-11	CARBON	1K	5%	1/4W	F	R1606	1-249-405-11	CARBON	100	5%	1/4W		
R514	1-216-441-00	METAL OXIDE	27K	5%	1W	F	R1607	1-249-415-11	CARBON	680	5%	1/4W		
R515	1-249-432-11	CARBON	18K	5%	1/4W	F	R1608	1-249-415-11	CARBON	680	5%	1/4W		
R516	1-249-417-11	CARBON	1K	5%	1/4W	F	R1609	1-249-415-11	CARBON	680	5%	1/4W		
R517	1-249-427-11	CARBON	6.8K	5%	1/4W	F	R1610	1-249-405-11	CARBON	100	5%	1/4W		
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F	R1611	1-249-405-11	CARBON	100	5%	1/4W		
R519	1-249-417-11	CARBON	1K	5%	1/4W	F	R1612	1-249-405-11	CARBON	100	5%	1/4W		
R520	1-215-925-11	METAL OXIDE	22K	5%	3W	F	R1613	1-249-423-11	CARBON	3.3K	5%	1/4W		
R521	1-215-925-11	METAL OXIDE	22K	5%	3W	F	R1614	1-249-411-11	CARBON	330	5%	1/4W		
R522	1-249-421-11	CARBON	2.2K	5%	1/4W		R1622	1-249-423-11	CARBON	3.3K	5%	1/4W		
R523	1-249-434-11	CARBON	27K	5%	1/4W		R1624	1-249-424-11	CARBON	3.9K	5%	1/4W		
R524	1-249-434-11	CARBON	27K	5%	1/4W		R1627	1-249-429-11	CARBON	10K	5%	1/4W		
R525	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F	R1630	1-249-434-11	CARBON	27K	5%	1/4W		
R526	1-249-417-11	CARBON	1K	5%	1/4W		R1631	1-249-433-11	CARBON	22K	5%	1/4W		
R528	1-216-447-00	METAL OXIDE	27	5%	2W	F	R1656	1-249-397-11	CARBON	22	5%	1/4W		
R529	1-216-447-00	METAL OXIDE	27	5%	2W	F	R1657	1-249-397-11	CARBON	22	5%	1/4W		
R530	1-249-431-11	CARBON	15K	5%	1/4W		R1658	1-249-397-11	CARBON	22	5%	1/4W		
R531	1-249-431-11	CARBON	15K	5%	1/4W									
R532	1-249-385-11	CARBON	2.2	5%	1/4W	F								
R533	1-249-405-11	CARBON	100	5%	1/4W									
R534	1-249-405-11	CARBON	100	5%	1/4W									
R535	1-249-405-11	CARBON	100	5%	1/4W		T501	A 1-439-545-11	TRANSFORMER	FERRITE				
R536	1-207-687-00	WIREWOUND	150	10%	5W	F	T502	A 1-437-078-11	TRANSFORMER	HORIZONTAL DRIVE				
R537	1-207-687-00	WIREWOUND	150	10%	5W	F								
R550	1-249-385-11	CARBON	2.2	5%	1/4W	F								
R558	1-249-385-11	CARBON	2.2	5%	1/4W	F								
R559	1-249-409-11	CARBON	220	5%	1/4W									
R560	1-249-409-11	CARBON	220	5%	1/4W									
R563	1-249-429-11	CARBON	10K	5%	1/4W									
R564	1-249-429-11	CARBON	10K	5%	1/4W									
R565	1-249-427-11	CARBON	6.8K	5%	1/4W									
R566	1-249-427-11	CARBON	6.8K	5%	1/4W									
R567	1-249-427-11	CARBON	6.8K	5%	1/4W									
R568	1-249-427-11	CARBON	6.8K	5%	1/4W									
R569	1-249-426-11	CARBON	5.6K	5%	1/4W									
R570	1-249-441-11	CARBON	100K	5%	1/4W		C3001	1-124-589-11	ELECT	47MF	20%	16V		
R571	1-249-429-11	CARBON	10K	5%	1/4W		C3002	1-164-346-11	CERAMIC CHIP	1MF		16V		
R572	1-249-429-11	CARBON	10K	5%	1/4W		C3003	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		
R574	1-249-417-11	CARBON	1K	5%	1/4W		C3004	1-163-119-00	CERAMIC CHIP	120PF	5%	50V		
R579	1-249-417-11	CARBON	1K	5%	1/4W		C3005	1-163-235-11	CERAMIC CHIP	22PF	5%	50V		
R1401	1-215-445-00	METAL	10K	1%	1/4W		C3006	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		
R1402	1-215-445-00	METAL	10K	1%	1/4W		C3007	1-164-005-11	CERAMIC CHIP	0.47MF	25V			
R1403	1-215-445-00	METAL	10K	1%	1/4W		C3008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V		
R1404	1-215-445-00	METAL	10K	1%	1/4W		C3009	1-124-925-11	ELECT	2.2MF	20%	50V		
R1405	1-249-385-11	CARBON	2.2	5%	1/4W		C3010	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V		
R1406	1-249-385-11	CARBON	2.2	5%	1/4W									
R1409	1-249-433-11	CARBON	22K	5%	1/4W		C3011	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V		
R1410	1-249-433-11	CARBON	22K	5%	1/4W		C3012	1-164-336-11	CERAMIC CHIP	0.33MF	25V			
R1411	1-249-437-11	CARBON	47K	5%	1/4W		C3013	1-164-222-11	CERAMIC CHIP	0.22MF	25V			
R1427	1-215-865-11	METAL OXIDE	220	5%	1W	F	C3014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V		
R1428	1-215-865-11	METAL OXIDE	220	5%	1W	F	C3015	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		
R1431	1-249-405-11	CARBON	100	5%	1/4W		C3016	1-163-107-00	CERAMIC CHIP	39PF	5%	50V		
R1433	1-249-425-11	CARBON	4.7K	5%	1/4W		C3017	1-130-495-00	MYLAR	0.1MF	5%	50V		
R1434	1-249-423-11	CARBON	3.3K	5%	1/4W		C3018	1-163-115-00	CERAMIC CHIP	82PF	5%	50V		
R1439	1-247-883-00	CARBON	150K	5%	1/4W		C3019	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		
R1440	1-249-417-11	CARBON	1K	5%	1/4W		C3020	1-163-105-00	CERAMIC CHIP	33PF	5%	50V		
R1442	1-215-410-00	METAL	360	1%	1/4W		C3021	1-163-115-00	CERAMIC CHIP	82PF	5%	50V		
R1443	1-247-883-00	CARBON	150K	5%	1/4W		C3022	1-126-301-11	ELECT	1MF	20%	50V		
R1444	1-249-417-11	CARBON	1K	5%	1/4W		C3023	1-124-589-11	ELECT	47MF	20%	16V		

**P1**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C3024	1-163-018-00	CERAMIC CHIP 0.0056MF	10%	50V	IC3004	8-759-088-90	IC SDA9187X
C3025	1-164-343-11	CERAMIC CHIP 0.056MF	10%	25V	IC3005	8-759-088-91	IC SDA9188X
C3026	1-126-163-11	ELECT 4.7MF	20%	50V	IC3006	8-759-112-06	IC UPC78N05H
C3027	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V	IC3007	8-759-046-27	IC SDA9086-3
C3028	1-124-589-11	ELECT 47MF	20%	16V	IC3008	8-759-112-06	IC UPC78N05H
C3029	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	<COIL>		
C3030	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	L3001	1-410-476-11	INDUCTOR 33UH
C3031	1-126-177-11	ELECT 100MF	20%	6.3V	L3002	1-408-424-00	INDUCTOR 180UH
C3032	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3003	1-408-424-00	INDUCTOR 180UH
C3033	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3004	1-410-470-11	INDUCTOR 10UH
C3034	1-164-336-11	CERAMIC CHIP 0.33MF		25V	L3005	1-410-472-41	INDUCTOR 15UH
C3035	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	L3006	1-412-788-41	INDUCTOR 10UH
C3036	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3007	1-410-472-41	INDUCTOR 15UH
C3037	1-124-589-11	ELECT 47MF	20%	16V	L3008	1-410-472-41	INDUCTOR 15UH
C3038	1-136-287-11	FILM 0.0047MF	5%	50V	L3009	1-410-472-41	INDUCTOR 15UH
C3039	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3010	1-410-466-41	INDUCTOR 4.7UH
C3040	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	L3011	1-410-470-11	INDUCTOR 10UH
C3042	1-164-346-11	CERAMIC CHIP 1MF		16V	L3012	1-410-676-31	INDUCTOR 150UH
C3043	1-124-465-00	ELECT 0.47MF	20%	50V	L3013	1-412-911-11	INDUCTOR, FERRITE BEAD
C3044	1-126-301-11	ELECT 1MF	20%	50V	L3014	1-412-911-11	INDUCTOR, FERRITE BEAD
C3045	1-124-589-11	ELECT 47MF	20%	16V	L3015	1-412-911-11	INDUCTOR, FERRITE BEAD
C3046	1-126-301-11	ELECT 1MF	20%	50V	L3100	1-412-799-41	INDUCTOR 82UH
C3047	1-126-301-11	ELECT 1MF	20%	50V	<TRANSISTOR>		
C3052	1-126-177-11	ELECT 100MF	20%	6.3V	Q3003	8-729-216-22	TRANSISTOR 2SA1162-G
C3053	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q3004	8-729-422-27	TRANSISTOR 2SD601A-Q
C3054	1-126-177-11	ELECT 100MF	20%	6.3V	Q3006	8-729-422-27	TRANSISTOR 2SD601A-Q
C3055	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	Q3007	8-729-216-22	TRANSISTOR 2SA1162-G
C3057	1-124-589-11	ELECT 47MF	20%	16V	Q3008	8-729-422-27	TRANSISTOR 2SD601A-Q
C3058	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	Q3009	8-729-216-22	TRANSISTOR 2SA1162-G
C3059	1-164-222-11	CERAMIC CHIP 0.22MF		25V	Q3010	8-729-422-27	TRANSISTOR 2SD601A-Q
C3060	1-124-589-11	ELECT 47MF	20%	16V	Q3011	8-729-216-22	TRANSISTOR 2SA1162-G
C3064	1-163-123-00	CERAMIC CHIP 180PF	5%	50V	Q3012	8-729-422-27	TRANSISTOR 2SD601A-Q
C3065	1-124-589-11	ELECT 47MF	20%	16V	Q3013	8-729-422-27	TRANSISTOR 2SD601A-Q
C3066	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q3014	8-729-422-27	TRANSISTOR 2SD601A-Q
C3067	1-124-589-11	ELECT 47MF	20%	16V	Q3100	8-729-216-22	TRANSISTOR 2SA1162-G
C3069	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	<RESISTOR>		
C3070	1-126-177-11	ELECT 100MF	20%	6.3V	JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W
C3071	1-124-589-11	ELECT 47MF	20%	16V	R3001	1-216-085-00	METAL GLAZE 33K 5% 1/10W
C3072	1-124-589-11	ELECT 47MF	20%	16V	R3002	1-216-089-00	METAL GLAZE 47K 5% 1/10W
C3073	1-124-589-11	ELECT 47MF	20%	16V	R3003	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W
C3074	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	R3004	1-216-091-00	METAL GLAZE 56K 5% 1/10W
C3076	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3005	1-216-689-11	METAL GLAZE 39K 5% 1/10W
C3077	1-164-005-11	CERAMIC CHIP 0.47MF		25V	R3006	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C3081	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	R3007	1-216-079-00	METAL GLAZE 18K 5% 1/10W
C3100	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3008	1-216-073-00	METAL GLAZE 10K 5% 1/10W
C3101	1-162-926-11	CERAMIC CHIP 82PF	5%	50V	R3009	1-216-041-00	METAL GLAZE 470 5% 1/10W
<CONNECTOR>					R3010	1-216-049-00	METAL GLAZE 1K 5% 1/10W
<DIODE>					R3011	1-216-073-00	METAL GLAZE 10K 5% 1/10W
D3003	8-719-158-15	DIODE RD5.6S-B			R3012	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
D3004	8-719-404-46	DIODE MA110			R3013	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
D3009	8-719-404-46	DIODE MA110			R3014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
<IC>					R3015	1-216-049-00	METAL GLAZE 1K 5% 1/10W
IC3001	8-759-046-25	IC TDA3769			R3017	1-216-083-00	METAL GLAZE 27K 5% 1/10W
IC3002	8-759-009-46	IC MC14528BF			R3018	1-216-097-00	METAL GLAZE 100K 5% 1/10W
IC3003	8-759-513-48	IC TDA2595/V9			R3019	1-216-077-00	METAL GLAZE 15K 5% 1/10W
					R3020	1-216-099-00	METAL GLAZE 120K 5% 1/10W
					R3021	1-216-075-00	METAL GLAZE 12K 5% 1/10W

P1 M

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3023	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W			
R3025	1-216-015-00	METAL GLAZE	39	5%	1/10W		
R3026	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R3027	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		
R3028	1-216-027-00	METAL GLAZE	120	5%	1/10W		
R3030	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3031	1-216-047-00	METAL GLAZE	820	5%	1/10W		
R3032	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R3033	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3034	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R3035	1-216-045-00	METAL GLAZE	680	5%	1/10W		
R3036	1-216-045-00	METAL GLAZE	680	5%	1/10W		
R3037	1-216-083-00	METAL GLAZE	27K	5%	1/10W		
R3038	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3039	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3040	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R3041	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3042	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R3043	1-216-099-00	METAL GLAZE	120K	5%	1/10W		
R3044	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R3045	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3050	1-216-033-00	METAL GLAZE	220	5%	1/10W		
R3052	1-216-033-00	METAL GLAZE	220	5%	1/10W		
R3053	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R3055	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W		
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W		
R3057	1-216-081-00	METAL GLAZE	22K	5%	1/10W		
R3058	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3059	1-216-079-00	METAL GLAZE	18K	5%	1/10W		
R3060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R3061	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3062	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3063	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R3064	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3065	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3066	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R3067	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3069	1-216-689-11	METAL GLAZE	39K	5%	1/10W		
R3071	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3073	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3074	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3075	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3076	1-216-043-00	METAL GLAZE	560	5%	1/10W		
R3077	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R3078	1-216-044-00	METAL GLAZE	620	5%	1/10W		
R3079	1-216-040-00	METAL GLAZE	430	5%	1/10W		
R3082	1-216-029-00	METAL GLAZE	150	5%	1/10W		
R3084	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3085	1-216-119-00	METAL GLAZE	820K	5%	1/10W		
R3086	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R3087	1-216-081-00	METAL GLAZE	22K	5%	1/10W		
R3088	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R3089	1-216-033-00	METAL GLAZE	220	5%	1/10W		
R3090	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R3091	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R3092	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R3098	1-216-296-00	METAL GLAZE	0	5%	1/8W		
R3099	1-216-296-00	METAL GLAZE	0	5%	1/8W		
R3100	1-216-296-00	METAL GLAZE	0	5%	1/8W		
R3101	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W		
R3102	1-216-047-00	METAL GLAZE	820	5%	1/10W		
R3103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R3104	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
<VARIABLE RESISTOR>							
RV3001	1-241-630-11	RES, ADJ, CARBON	10K				
RV3002	1-238-019-11	RES, ADJ, CARBON	47K				
RV3003	1-241-630-11	RES, ADJ, CARBON	10K				
<CRYSTAL>							
X3001	1-567-505-11	OSCILLATOR, CRYSTAL					
*****							
*A-1306-436-A M BOARD, COMPLETE							
*****							
<CAPACITOR>							
C001	1-124-261-00	ELECT	10MF		20%	50V	
C002	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C003	1-136-161-00	FILM	0.047MF		5%	50V	
C004	1-124-301-11	ELECT	1MF		20%	50V	
C005	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C014	1-124-910-11	ELECT	47MF		20%	50V	
C017	1-124-589-11	ELECT	47MF		20%	16V	
C018	1-163-141-00	CERAMIC CHIP	0.001MF		5%	50V	
C019	1-164-695-11	CERAMIC CHIP	0.0022MF		5%	50V	
C020	1-163-241-11	CERAMIC CHIP	39PF		5%	50V	
C021	1-163-239-11	CERAMIC CHIP	33PF		5%	50V	
C029	1-163-115-00	CERAMIC CHIP	82PF		5%	50V	
C030	1-163-115-00	CERAMIC CHIP	82PF		5%	50V	
C034	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C035	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C036	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C041	1-163-117-00	CERAMIC CHIP	100PF		5%	50V	
C042	1-163-117-00	CERAMIC CHIP	100PF		5%	50V	
C045	1-163-125-00	CERAMIC CHIP	220PF		5%	50V	
C047	1-124-261-00	ELECT	10MF		20%	50V	
C048	1-124-261-00	ELECT	10MF		20%	50V	
C049	1-124-261-00	ELECT	10MF		20%	50V	
C055	1-163-809-11	CERAMIC CHIP	0.047MF		10%	25V	
C064	1-163-121-00	CERAMIC CHIP	150PF		5%	50V	
C065	1-124-257-00	ELECT	2.2MF		20%	50V	
<DIODE>							
D001	8-719-404-46	DIODE	MA110				
D002	8-719-404-46	DIODE	MA110				
D009	8-719-404-46	DIODE	MA110				
D010	8-713-300-57	DIODE	1T33				
D011	8-719-404-46	DIODE	MA110				
D012	8-719-404-46	DIODE	MA110				
D014	8-719-404-46	DIODE	MA110				
D015	8-719-404-46	DIODE	MA110				
<IC>							
IC001	8-759-169-06	IC	TMC73C247-10				
IC002	8-759-403-44	IC	MN1280-S				
<COIL>							
L001	1-408-409-00	INDUCTOR			10UH		
L002	1-410-476-11	INDUCTOR			33UH		

**M**

**E2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;CONNECTOR&gt;</b>											
M001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P		R063	1-216-033-00	METAL GLAZE	220 5% 1/10W				
M39	*1-564-521-11	PLUG, CONNECTOR 6P		R064	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W				
M45	*1-564-523-31	PLUG, CONNECTOR 8P		R065	1-216-033-00	METAL GLAZE	220 5% 1/10W				
				R066	1-216-033-00	METAL GLAZE	220 5% 1/10W				
<b>&lt;TRANSISTOR&gt;</b>											
Q001	8-729-216-22	TRANSISTOR 2SA1162-G		R067	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q009	8-729-422-27	TRANSISTOR 2SD601A-Q		R068	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q010	8-729-422-27	TRANSISTOR 2SD601A-Q		R069	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
Q011	8-729-422-27	TRANSISTOR 2SD601A-Q		R070	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q012	8-729-422-27	TRANSISTOR 2SD601A-Q		R071	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q013	8-729-216-22	TRANSISTOR 2SA1162-G		R072	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q014	8-729-422-27	TRANSISTOR 2SD601A-Q		R073	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
<b>&lt;RESISTOR&gt;</b>											
R001	1-216-045-00	METAL GLAZE	680 5% 1/10W	R074	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R002	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R075	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R003	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R076	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R004	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R077	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R005	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R078	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R006	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R079	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R007	1-216-027-00	METAL GLAZE	120 5% 1/10W	R080	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R008	1-216-041-00	METAL GLAZE	470 5% 1/10W	R081	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R009	1-216-027-00	METAL GLAZE	120 5% 1/10W	R082	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R011	1-216-033-00	METAL GLAZE	220 5% 1/10W	R083	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R012	1-216-033-00	METAL GLAZE	220 5% 1/10W	R084	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R013	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R085	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R014	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R086	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R015	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R087	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R016	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R088	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R017	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R089	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R018	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R090	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R019	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R091	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R033	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R092	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R034	1-216-033-00	METAL GLAZE	220 5% 1/10W	R093	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R035	1-216-033-00	METAL GLAZE	220 5% 1/10W	R094	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R036	1-216-033-00	METAL GLAZE	220 5% 1/10W	R095	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R037	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R096	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R038	1-216-033-00	METAL GLAZE	220 5% 1/10W	R097	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R039	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R098	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R040	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R099	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R041	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R100	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R042	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R101	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R043	1-216-033-00	METAL GLAZE	220 5% 1/10W	R102	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R044	1-216-033-00	METAL GLAZE	220 5% 1/10W	R103	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R045	1-216-025-00	METAL GLAZE	100 5% 1/10W	R104	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R046	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	<b>&lt;CRYSTAL&gt;</b>							
R047	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	X001	1-579-743-11	VIBRATOR, CRYSTAL		*****	*****	*****	*****
R048	1-216-033-00	METAL GLAZE	220 5% 1/10W	*A-1346-137-A	E2 BOARD, COMPLETE			*****	*****	*****	*****
R049	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	<b>&lt;CAPACITOR&gt;</b>							
R050	1-216-295-00	METAL GLAZE	0 5% 1/10W	C2302	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V				
R051	1-216-033-00	METAL GLAZE	220 5% 1/10W	C2303	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
R052	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2310	1-163-105-00	CERAMIC CHIP	33PF 5% 50V				
R053	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2314	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
R054	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C2315	1-126-157-11	ELECT	10MF 20% 16V				
R055	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C2316	1-126-157-11	ELECT	10MF 20% 16V				
R056	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2317	1-126-157-11	ELECT	10MF 20% 16V				
R057	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2318	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
R058	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2320	1-124-589-11	ELECT	47MF 20% 16V				
R059	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C2321	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V				
R060	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W								

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2322	1-124-234-00	ELECT 22MF	20%	16V	Q2305	8-729-903-10	TRANSISTOR FMW1
C2323	1-124-234-00	ELECT 22MF	20%	16V	Q2306	8-729-403-27	TRANSISTOR XN4401
C2324	1-124-234-00	ELECT 22MF	20%	16V	Q2307	8-729-403-27	TRANSISTOR XN4401
C2325	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2308	8-729-403-27	TRANSISTOR XN4401
C2326	1-124-589-11	ELECT 47MF	20%	16V	Q2309	8-729-903-10	TRANSISTOR FMW1
C2327	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2310	8-729-403-27	TRANSISTOR XN4401
C2328	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2311	8-729-903-10	TRANSISTOR FMW1
C2329	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2312	8-729-403-27	TRANSISTOR XN4401
C2331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2313	8-729-903-10	TRANSISTOR FMW1
C2332	1-124-234-00	ELECT 22MF	20%	16V	Q2314	8-729-403-27	TRANSISTOR XN4401
C2333	1-124-234-00	ELECT 22MF	20%	16V	Q2315	8-729-903-10	TRANSISTOR FMW1
C2334	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2317	8-729-216-22	TRANSISTOR 2SA1162-G
C2335	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2318	8-729-216-22	TRANSISTOR 2SA1162-G
C2336	1-126-163-11	ELECT 4.7MF	20%	16V	Q2319	8-729-216-22	TRANSISTOR 2SA1162-G
C2337	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2320	8-729-422-27	TRANSISTOR 2SD601A-Q
C2338	1-163-038-00	CERAMIC CHIP 0.1MF		25V	Q2321	8-729-422-27	TRANSISTOR 2SD601A-Q
C2340	1-216-133-00	METAL GLAZB 3.3M 5%	1/10W		Q2322	8-729-422-27	TRANSISTOR 2SD601A-Q
C2341	1-135-217-21	TANTAL. CHIP 15WF	20%	6.3V	Q2324	8-729-216-22	TRANSISTOR 2SA1162-G
C2345	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2326	8-729-422-27	TRANSISTOR 2SD601A-Q
C2346	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2327	8-729-422-27	TRANSISTOR 2SD601A-Q
C2347	1-163-367-11	CERAMIC CHIP 39PF	5%	50V	Q2328	8-729-925-79	TRANSISTOR IMX3
C2349	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2329	8-729-925-79	TRANSISTOR IMX3
C2350	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2330	8-729-903-10	TRANSISTOR FMW1
C2351	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2336	8-729-925-79	TRANSISTOR IMX3
C2352	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2337	8-729-925-79	TRANSISTOR IMX3
C2353	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2339	8-729-422-27	TRANSISTOR 2SD601A-Q
C2354	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2340	8-729-422-27	TRANSISTOR 2SD601A-Q
C2357	1-126-301-11	ELECT 1MF	20%	50V	Q2341	8-729-422-27	TRANSISTOR 2SD601A-Q
C2360	1-163-109-00	CERAMIC CHIP 47PF	5%	50V			

## &lt;DIODE&gt;

D2306	8-719-404-46	DIODE MA110
D2307	8-719-946-98	DIODE FMW1
D2308	8-719-946-98	DIODE FMW1
D2309	8-719-404-46	DIODE MA110
D2312	8-719-404-46	DIODE MA110
D2313	8-719-404-46	DIODE MA110
D2314	8-713-300-57	DIODE IT33
D2317	8-719-404-46	DIODE MA110

## &lt;RESISTOR&gt;

R2302	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R2303	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R2304	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R2305	1-216-033-00	METAL GLAZE 220	5%	1/10W
R2306	1-216-045-00	METAL GLAZE 680	5%	1/10W
R2307	1-216-045-00	METAL GLAZE 680	5%	1/10W
R2308	1-216-045-00	METAL GLAZE 680	5%	1/10W
R2309	1-216-041-00	METAL GLAZE 470	5%	1/10W
R2310	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R2311	1-216-025-00	METAL GLAZE 100	5%	1/10W

## &lt;CONNECTOR&gt;

E2-002	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P
E2-25	*1-564-521-31	PLUG, CONNECTOR 6P
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P

R2312	1-216-043-00	METAL GLAZE 560	5%	1/10W
R2313	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R2314	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R2315	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R2317	1-216-041-00	METAL GLAZE 470	5%	1/10W

## &lt;IC&gt;

IC2301	8-759-066-52	IC PCA8510T/012-T
IC2303	8-759-925-75	IC SN74HC05ANS
IC2304	8-752-037-15	IC CXA1387S
IC2306	8-759-011-65	IC MC74HC4053F
IC2307	8-752-058-68	IC CXA1315M

R2318	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R2319	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R2320	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R2321	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R2322	1-216-049-00	METAL GLAZE 1K	5%	1/10W

## &lt;COIL&gt;

L2304	1-408-414-00	INDUCTOR 27UH
-------	--------------	---------------

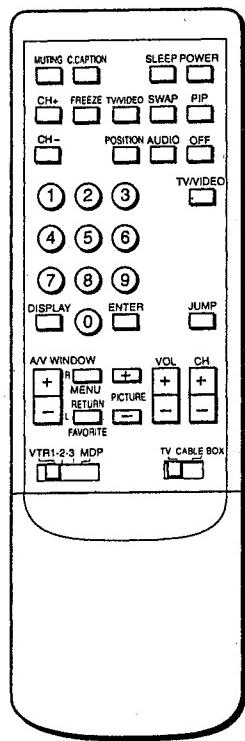
R2323	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R2324	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R2325	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R2326	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R2327	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R2328	1-216-025-00	METAL GLAZE 100	5%	1/10W
R2329	1-216-025-00	METAL GLAZE 100	5%	1/10W
R2330	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R2331	1-216-063-00	METAL GLAZE 3.9K	5%	1/10W
R2332	1-216-025-00	METAL GLAZE 100	5%	1/10W

## &lt;TRANSISTOR&gt;

Q2301	8-729-903-10	TRANSISTOR FMW1
Q2303	8-729-403-27	TRANSISTOR XN4401
Q2304	8-729-925-79	TRANSISTOR IMX3

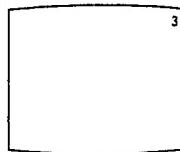
R2333	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R2334	1-216-295-00	METAL GLAZE 0	5%	1/10W

## Watching TV Programs



Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

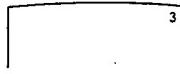
- 1 Press POWER to turn on the projection TV.  
TIMER/STAND BY indicator blinks until the picture appears.



- 2 Set the cable connection on or off (pp. 26 – 27) to select the type of channel you want to watch, VHF/UHF or cable TV.

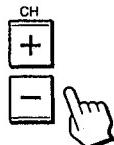


To watch VHF  
or UHF channels

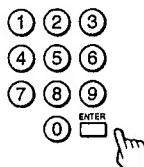


To watch  
cable TV channels

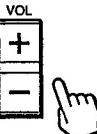
- 3 Select a channel in one of the following two ways:  
To scan the preset channels in numerical sequence, press CH +/-.



To select a channel directly, press 0 – 9 and then ENTER.  
For example, to select channel 10, press 1, 0 and ENTER.



- 4 Press VOL +/- to adjust the volume.



Press + to increase the volume.  
Press - to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen  
Press TV/VIDEO until a TV channel number appears.

To select channels more easily  
Set FAVORITE CHANNEL (pp. 64 – 65).  
To turn off the projection TV  
Press POWER.

**E2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2335	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3310	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2336	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3311	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2337	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3312	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2338	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3313	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2340	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3314	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2341	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3315	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R2342	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3316	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R2343	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3318	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2344	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3319	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2345	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R3320	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2346	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3321	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2347	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R3323	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R2348	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R3324	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2349	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3325	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2350	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3328	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3330	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2352	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3331	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2353	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3332	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2354	1-216-210-00	METAL GLAZE	3.3K 5% 1/8W	R3333	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R2355	1-216-178-00	METAL GLAZE	150 5% 1/8W	R3334	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R2356	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R3335	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2357	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W	R3336	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R2359	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3337	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R2360	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3339	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2361	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3340	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2362	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3341	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R2363	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3342	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W
R2364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3343	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2365	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3344	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3347	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R2367	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3348	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R2368	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3349	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3350	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2374	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2375	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3352	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2376	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3353	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2377	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3354	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2378	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3356	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R2379	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3357	1-216-654-11	METAL CHIP	1.3K 0.50% 1/10W
R2380	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3358	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R2381	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3359	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R2382	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3360	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2384	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3361	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2385	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R3362	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2386	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3364	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2387	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3365	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2388	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3367	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2389	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3368	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2390	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3369	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2392	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3370	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2393	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3371	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2394	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3373	1-216-673-11	METAL CHIP	8.2K 0.50% 1/10W
R2395	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3374	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2396	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3375	1-216-658-11	METAL CHIP	2K 0.50% 1/10W
R2397	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3376	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R2399	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3377	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R3301	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3378	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R3302	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3379	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R3303	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R3380	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R3304	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R3381	1-216-025-00	METAL GLAZE	100 5% 1/10W
R3306	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R3382	1-216-295-00	METAL GLAZE	0 5% 1/10W
R3307	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R3392	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R3308	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3401	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R3309	1-216-049-00	METAL GLAZE	1K 5% 1/10W				

E2 E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK					
R7312	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C361	1-126-301-11	ELECT 1MF	20% 50V				
R7313	1-216-047-00	METAL GLAZE	820 5%	1/10W	C362	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
R7314	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	C363	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
<CRYSTAL>												
X2301	1-577-071-11	VIBRATOR, CERAMIC			C364	1-126-301-11	ELECT 1MF	20% 50V				
*****												
*A-1346-138-A	E1 BOARD, COMPLETE			C365	1-164-343-11	CERAMIC CHIP 0.056MF	10% 25V					
*****												
<CAPACITOR>												
C301	1-163-010-11	CERAMIC CHIP 0.0012MF	10%	50V	C366	1-124-257-00	ELECT 2.2MF	20% 50V				
C303	1-126-157-11	ELECT 10MF	20%	16V	C367	1-126-157-11	ELECT 10MF	20% 16V				
C304	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	C368	1-124-234-00	ELECT 22MF	20% 16V				
C305	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	C369	1-163-001-11	CERAMIC CHIP 220PF	10% 50V				
C306	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C370	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C309	1-164-505-11	CERAMIC CHIP 2.2MF		16V	C371	1-124-126-00	ELECT 47MF	20% 16V				
C310	1-163-109-00	CERAMIC CHIP 47PF	5%	50V	C372	1-124-589-11	ELCT 47MF	20% 16V				
C314	1-124-915-11	ELECT 10MF	20%	16V	C373	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C315	1-164-505-11	CERAMIC CHIP 2.2MF		16V	C378	1-163-117-00	CERAMIC CHIP 100PF	5% 50V				
C319	1-126-157-11	ELECT 10MF	20%	16V	C379	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
<DIODE>												
C320	1-124-465-00	ELECT 0.47MF	20%	50V	D301	8-719-404-46	DIODE MA110					
C321	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	D302	8-719-404-46	DIODE MA110					
C322	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	D303	8-719-404-46	DIODE MA110					
C323	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	D304	8-719-404-46	DIODE MA110					
C324	1-124-234-00	ELECT 22MF	20%	16V	D305	8-719-404-46	DIODE MA110					
C325	1-104-563-11	FILM CHIP 0.1MF	5%	16V	D306	8-719-158-15	DIODE RD5.6S-B					
C326	1-104-563-11	FILM CHIP 0.1MF	5%	16V	D307	8-719-404-46	DIODE MA110					
C327	1-104-563-11	FILM CHIP 0.1MF	5%	16V	D310	8-719-158-15	DIODE RD5.6S-B					
C328	1-126-157-11	ELECT 10MF	20%	16V	D312	8-719-404-46	DIODE MA110					
C329	1-126-157-11	ELECT 10MF	20%	16V	D313	8-719-404-46	DIODE MA110					
C330	1-126-157-11	ELECT 10MF	20%	16V	D314	8-719-404-46	DIODE MA110					
C331	1-126-301-11	ELECT 1MF	20%	50V	D315	8-719-404-46	DIODE MA110					
C332	1-124-584-00	ELECT 100MF	20%	10V	D316	8-719-404-46	DIODE MA110					
C333	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	D317	8-719-404-46	DIODE MA110					
C334	1-137-491-11	FILM CHIP 0.1MF	5%	25V	D318	8-719-404-46	DIODE MA110					
C335	1-136-169-00	FILM 0.22MF	5%	50V	D319	8-719-404-46	DIODE MA110					
C336	1-126-301-11	ELECT 1MF	20%	50V	D320	8-719-404-46	DIODE MA110					
C337	1-126-301-11	ELECT 1MF	20%	50V	D321	8-719-400-94	DIODE MA3130					
C338	1-124-584-00	ELECT 100MF	20%	10V	<DELAY LINE>							
C339	1-124-791-11	ELECT 1MF	20%	50V	C340	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
<CONNECTOR>												
C341	1-126-157-11	ELECT 10MF	20%	16V	DL302	1-415-817-11	DELAY LINE					
C342	1-124-465-00	ELECT 0.47MF	20%	50V	<IC>							
C343	1-124-589-11	ELECT 47MF	20%	16V	E1-001	1-573-965-21	PIN, CONNECTOR (PC BOARD)	50P				
C344	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	E1-24	*1-564-523-11	PLUG, CONNECTOR	8P				
C345	1-124-767-00	ELECT 2.2MF	20%	50V	E1-25	*1-564-521-31	PLUG, CONNECTOR	6P				
C346	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	E1-26	*1-564-522-11	PLUG, CONNECTOR	7P				
C347	1-136-169-00	FILM 0.22MF	5%	50V	<COIL>							
C348	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C350	1-126-301-11	ELECT 1MF	20% 50V				
C349	1-126-301-11	ELECT 1MF	20%	50V	IC301	8-752-058-68	IC CXA1315M					
<IC>												
C351	1-163-002-11	CERAMIC CHIP 270PF	10%	50V	IC302	8-752-057-68	IC CXA1464AS					
C352	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	IC303	8-759-106-02	IC UPC4570G2					
C353	1-126-163-11	ELECT 4.7MF	20%	50V	<COIL>							
C354	1-136-169-00	FILM 0.22MF	5%	50V	C355	1-124-465-00	ELECT 0.47MF	20% 50V				
C356	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	IC304	8-752-058-68	IC CXA1315M					
C357	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	IC305	8-752-057-68	IC CXA1464AS					
C358	1-124-767-00	ELECT 2.2MF	20%	50V	IC306	8-759-106-02	IC UPC4570G2					
C360	1-137-491-11	FILM CHIP 0.1MF	5%	25V	L301	1-410-064-11	INDUCTOR	2.7MMH				
<COIL>												
C359	1-124-465-00	ELECT 0.47MF	20%	50V	L307	1-410-944-31	INDUCTOR CHIP	15UH				
C360	1-137-491-11	FILM CHIP 0.1MF	5%	25V	L308	1-410-946-31	INDUCTOR CHIP	22UH				

E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>							
Q301	8-729-925-79	TRANSISTOR IMX3		R343	1-216-077-00	METAL GLAZE	15K 5% 1/10W
Q302	8-729-925-79	TRANSISTOR IMX3		R344	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R345	1-216-292-11	METAL GLAZE	8.2M 5% 1/8W
Q304	8-729-907-46	TRANSISTOR IMZ1		R346	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q305	8-729-925-79	TRANSISTOR IMX3		R347	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q306	8-729-422-27	TRANSISTOR 2SD601A-Q		R348	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q307	8-729-903-10	TRANSISTOR FMW1		R349	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q309	8-729-422-27	TRANSISTOR 2SD601A-Q		R350	1-216-089-00	METAL GLAZE	47K 5% 1/10W
Q310	8-729-422-27	TRANSISTOR 2SD601A-Q		R351	1-216-674-11	METAL CHIP	9.1K 0.50% 1/10W
Q311	8-729-403-27	TRANSISTOR XN4401		R352	1-216-011-00	METAL GLAZE	27 5% 1/10W
Q312	8-729-422-27	TRANSISTOR 2SD601A-Q		R353	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q314	8-729-403-27	TRANSISTOR XN4401		R354	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q315	8-729-422-27	TRANSISTOR 2SD601A-Q		R355	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q316	8-729-422-27	TRANSISTOR 2SD601A-Q		R356	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q317	8-729-216-22	TRANSISTOR 2SA1162-G		R357	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q321	8-729-925-79	TRANSISTOR IMX3		R358	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q322	8-729-216-22	TRANSISTOR 2SA1162-G		R359	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q323	8-729-422-27	TRANSISTOR 2SD601A-Q		R360	1-216-119-00	METAL GLAZE	820K 5% 1/10W
Q324	8-729-216-22	TRANSISTOR 2SA1162-G		R361	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q325	8-729-216-22	TRANSISTOR 2SA1162-G		R362	1-216-079-00	METAL GLAZE	18K 5% 1/10W
Q326	8-729-422-27	TRANSISTOR 2SD601A-Q		R363	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q327	8-729-422-27	TRANSISTOR 2SD601A-Q		R364	1-216-045-00	METAL GLAZE	680 5% 1/10W
Q328	8-729-422-27	TRANSISTOR 2SD601A-Q		R365	1-216-017-00	METAL GLAZE	47 5% 1/10W
Q329	8-729-925-79	TRANSISTOR IMX3		R366	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q330	8-729-925-79	TRANSISTOR IMX3		R367	1-216-045-00	METAL GLAZE	680 5% 1/10W
Q331	8-729-925-79	TRANSISTOR IMX3		R368	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q332	8-729-422-27	TRANSISTOR 2SD601A-Q		R369	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q333	8-729-925-79	TRANSISTOR IMX3		R370	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q334	8-729-422-27	TRANSISTOR 2SD601A-Q		R371	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q335	8-729-907-46	TRANSISTOR IMZ1		R372	1-216-031-00	METAL GLAZE	180 5% 1/10W
Q336	8-729-422-27	TRANSISTOR 2SD601A-Q		R373	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
Q337	8-729-925-79	TRANSISTOR IMX3		R374	1-216-037-00	METAL GLAZE	330 5% 1/10W
Q338	8-729-216-22	TRANSISTOR 2SA1162-G		R375	1-216-037-00	METAL GLAZE	330 5% 1/10W
Q339	8-729-216-22	TRANSISTOR 2SA1162-G		R376	1-216-037-00	METAL GLAZE	330 5% 1/10W
Q340	8-729-422-27	TRANSISTOR 2SD601A-Q		R377	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q341	8-729-925-79	TRANSISTOR IMX3		R378	1-216-033-00	METAL GLAZE	220 5% 1/10W
<RESISTOR>							
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W	R379	1-216-033-00	METAL GLAZE	220 5% 1/10W
R302	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R380	1-216-033-00	METAL GLAZE	220 5% 1/10W
R303	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R381	1-216-033-00	METAL GLAZE	220 5% 1/10W
R304	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R382	1-216-033-00	METAL GLAZE	220 5% 1/10W
R305	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R383	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R306	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R384	1-216-041-00	METAL GLAZE	470 5% 1/10W
R307	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R385	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R308	1-216-037-00	METAL GLAZE	330 5% 1/10W	R386	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R309	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R387	1-216-033-00	METAL GLAZE	220 5% 1/10W
R310	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R388	1-216-033-00	METAL GLAZE	220 5% 1/10W
R311	1-216-043-00	METAL GLAZE	560 5% 1/10W	R389	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R312	1-216-035-00	METAL GLAZE	270 5% 1/10W	R390	1-216-033-00	METAL GLAZE	220 5% 1/10W
R313	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R314	1-216-035-00	METAL GLAZE	270 5% 1/10W	R392	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R315	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R393	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R316	1-216-035-00	METAL GLAZE	1M 5% 1/10W	R394	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R317	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R395	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R318	1-216-039-00	METAL GLAZE	390 5% 1/10W	R396	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R319	1-216-033-00	METAL GLAZE	220 5% 1/10W	R397	1-216-025-00	METAL GLAZE	100 5% 1/10W
R320	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R398	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R321	1-216-017-00	METAL GLAZE	47 5% 1/10W	R399	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R322	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W	R400	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R323	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R401	1-216-045-00	METAL GLAZE	680 5% 1/10W
R324	1-216-047-00	METAL GLAZE	820 5% 1/10W	R402	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R325	1-216-043-00	METAL GLAZE	560 5% 1/10W	R403	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R326	1-216-047-00	METAL GLAZE	820 5% 1/10W	R404	1-216-025-00	METAL GLAZE	100 5% 1/10W
R327	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R405	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R328	1-216-043-00	METAL GLAZE	560 5% 1/10W	R406	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R329	1-216-047-00	METAL GLAZE	820 5% 1/10W	R407	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R330	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R408	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W

E1 | Y2

**Y2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
C466	1-130-485-00	MYLAR	0.015MF	5%	50V	R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
C467	1-136-169-00	FILM	0.22MF	5%	50V	R476	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C468	1-136-169-00	FILM	0.22MF	5%	50V	R477	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
C469	1-126-157-11	ELECT	10MF	20%	16V	R478	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C470	1-126-157-11	ELECT	10MF	20%	16V	R479	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C471	1-124-589-11	ELECT	47MF	20%	16V	R480	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R481	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R482	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C474	1-124-234-00	ELECT	22MF	20%	16V	R483	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C475	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W
C476	1-124-234-00	ELECT	22MF	20%	16V	R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R488	1-216-295-00	METAL GLAZE	0	5%	1/10W
C478	1-124-478-11	ELECT	100MF	20%	25V	R494	1-216-025-00	METAL GLAZE	100	5%	1/10W
C479	1-126-163-11	ELECT	4.7MF	20%	50V	R495	1-216-025-00	METAL GLAZE	100	5%	1/10W
C480	1-124-768-11	ELECT	4.7MF	20%	50V	R496	1-216-025-00	METAL GLAZE	100	5%	1/10W
C481	1-124-768-11	ELECT	4.7MF	20%	50V	R497	1-216-033-00	METAL GLAZE	220	5%	1/10W
C482	1-126-163-11	ELECT	4.7MF	20%	50V	R498	1-216-025-00	METAL GLAZE	100	5%	1/10W
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	R499	1-216-025-00	METAL GLAZE	100	5%	1/10W
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	R500	1-216-081-00	METAL GLAZE	22K	5%	1/10W
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V	R501	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R502	1-216-033-00	METAL GLAZE	220	5%	1/10W
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R503	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
<DIODE>											
D405	8-719-107-13	DIODE RD18M-B1				R504	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
D406	8-719-107-13	DIODE RD18M-B1				R507	1-216-295-00	METAL GLAZE	0	5%	1/10W
D407	8-719-107-13	DIODE RD18M-B1				R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D408	8-719-105-83	DIODE RD5.1M-B3				R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
D409	8-719-981-50	DIODE RB-100A				R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D410	8-719-981-50	DIODE RB-100A				R513	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
D413	8-719-158-19	DIODE RD6.2S-B				R515	1-216-295-00	METAL GLAZE	0	5%	1/10W
D414	8-719-158-55	DIODE RD15S-B				R517	1-216-025-00	METAL GLAZE	100	5%	1/10W
D415	8-719-158-55	DIODE RD15S-B				R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W
<IC>											
IC403	8-759-996-43	IC RC4558PS				R519	1-216-295-00	METAL GLAZE	0	5%	1/10W
IC404	8-759-067-24	IC 24C04A1/P				R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
IC406	8-752-037-24	IC CXA1264AS				R522	1-216-033-00	METAL GLAZE	220	5%	1/10W
IC407	8-759-245-75	IC TA8184P				R523	1-216-033-00	METAL GLAZE	220	5%	1/10W
IC408	8-752-057-18	IC CXA1315P				R524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
<TRANSISTOR>											
Q404	8-729-216-22	TRANSISTOR 2SA1162-G				R525	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
Q405	8-729-216-22	TRANSISTOR 2SA1162-G				R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W
Q409	8-729-422-27	TRANSISTOR 2SD601A-Q				R527	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q				R528	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
<RESISTOR>											
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W	R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W	R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W	R535	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W	R536	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W	R537	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	R538	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W	R539	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W	R542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	R543	1-216-025-00	METAL GLAZE	100	5%	1/10W
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W	R546	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W	R547	1-216-681-11	METAL CHIP	18K	0.50%	1/10W
<CONNECTOR>											
Y2-401 1-573-966-11 PIN, CONNECTOR (PC BOARD) 36P											
*****											

X2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1394-444-A	X2 BOARD, COMPLETE			C2563	1-163-257-11	CERAMIC CHIP 180PF	5% 50V
	*****	*****		C2564	1-126-301-11	ELECT 1MF	20% 50V
	<CAPACITOR>			C2565	1-126-163-11	ELECT 4.7MF	20% 50V
C2501	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2566	1-126-163-11	ELECT 4.7MF	20% 50V
C2502	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2567	1-126-163-11	ELECT 4.7MF	20% 50V
C2503	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	C2568	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C2504	1-126-163-11	ELECT 4.7MF	20% 50V	C2569	1-163-257-11	CERAMIC CHIP 180PF	5% 50V
C2505	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2570	1-124-234-00	ELECT 22MF	20% 16V
C2506	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2571	1-126-301-11	ELECT 1MF	20% 50V
C2507	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C2572	1-126-163-11	ELECT 4.7MF	20% 50V
C2508	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2573	1-124-234-00	ELECT 22MF	20% 16V
C2509	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2574	1-126-301-11	ELECT 1MF	20% 50V
C2510	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	C2575	1-126-301-11	ELECT 1MF	20% 50V
C2511	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2576	1-126-301-11	ELECT 1MF	20% 50V
C2512	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2577	1-126-163-11	ELECT 4.7MF	20% 50V
C2513	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2578	1-126-163-11	ELECT 4.7MF	20% 50V
C2514	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2579	1-126-103-11	ELECT 470MF	20% 16V
C2515	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2580	1-124-478-11	ELECT 100MF	20% 25V
C2516	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C2581	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C2517	1-126-157-11	ELECT 10MF	20% 16V	C2582	1-124-477-11	ELECT 47MF	20% 25V
C2518	1-126-163-11	ELECT 4.7MF	20% 50V	C2583	1-126-163-11	ELECT 4.7MF	20% 50V
C2519	1-126-301-11	ELECT 1MF	20% 50V	C2584	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C2520	1-126-163-11	ELECT 4.7MF	20% 50V	C2585	1-126-163-11	ELECT 4.7MF	20% 50V
C2521	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C2586	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C2522	1-124-252-00	ELECT 0.33MF	20% 50V	C2587	1-126-163-11	ELECT 4.7MF	20% 50V
C2523	1-126-163-11	ELECT 4.7MF	20% 50V	C2588	1-126-163-11	ELECT 4.7MF	20% 50V
C2524	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2589	1-126-163-11	ELECT 4.7MF	20% 50V
C2525	1-126-163-11	ELECT 4.7MF	20% 50V	C2590	1-124-478-11	ELECT 100MF	20% 25V
C2526	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2591	1-124-478-11	ELECT 100MF	20% 25V
C2527	1-126-157-11	ELECT 10MF	20% 16V			<DIODE>	
C2528	1-124-465-00	ELECT 0.47MF	20% 50V	D2501	8-719-104-34	DIODE 1S2836	
C2529	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	D2502	8-719-106-88	DIODE RD15M-B1	
C2530	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	D2503	8-719-106-88	DIODE RD15M-B1	
D2504	8-719-106-88	DIODE RD15M-B1		D2504	8-719-106-88	DIODE RD15M-B1	
C2531	1-126-301-11	ELECT 1MF	20% 50V			<IC>	
C2532	1-126-301-11	ELECT 1MF	20% 50V				
C2533	1-124-261-00	ELECT 10MF	20% 50V				
C2534	1-163-257-11	CERAMIC CHIP 180PF	5% 50V				
C2535	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C2536	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2501	8-759-031-31	IC MC33174M	
C2537	1-126-163-11	ELECT 4.7MF	20% 50V	IC2502	8-752-050-75	IC CXA1373Q	
C2538	1-126-163-11	ELECT 4.7MF	20% 50V	IC2503	8-759-604-70	IC M51523AL	
C2539	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	IC2504	8-759-031-31	IC MC33174M	
C2540	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2505	8-759-604-70	IC M51523AL	
C2541	1-163-139-00	CERAMIC CHIP 820PF	5% 50V	IC2506	8-759-106-22	IC UPD4052BG	
C2542	1-124-478-11	ELECT 100MF	20% 25V	IC2507	8-759-038-68	IC MC33172ML	
C2543	1-124-252-00	ELECT 0.33MF	20% 50V	IC2508	8-759-038-68	IC MC33172ML	
C2544	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V			<JACK>	
C2545	1-126-301-11	ELECT 1MF	20% 50V	J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	
C2546	1-126-163-11	ELECT 4.7MF	20% 50V				
C2547	1-126-163-11	ELECT 4.7MF	20% 25V				
C2548	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V				
C2549	1-126-163-11	ELECT 4.7MF	20% 50V				
C2550	1-126-163-11	ELECT 4.7MF	20% 25V				
C2551	1-126-301-11	ELECT 1MF	20% 50V	Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG	
C2552	1-126-163-11	ELECT 4.7MF	20% 50V				
C2553	1-126-301-11	ELECT 1MF	20% 50V				
C2554	1-124-234-00	ELECT 22MF	20% 16V				
C2555	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C2556	1-124-257-00	ELECT 2.2MF	20% 50V	R2501	1-216-079-00	METAL GLAZE 18K	5% 1/10W
C2557	1-124-234-00	ELECT 22MF	20% 16V	R2502	1-216-097-00	METAL GLAZE 100K	5% 1/10W
C2558	1-126-301-11	ELECT 1MF	20% 50V	R2503	1-216-091-00	METAL GLAZE 56K	5% 1/10W
C2559	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	R2504	1-216-109-00	METAL GLAZE 330K	5% 1/10W
C2560	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	R2505	1-216-109-00	METAL GLAZE 330K	5% 1/10W
C2561	1-126-301-11	ELECT 1MF	20% 50V				
C2562	1-163-263-11	CERAMIC CHIP 330PF	5% 50V				

**X2 G**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK					
R2506	1-216-101-00	METAL GLAZE	150K 5%	1/10W	R2572	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2507	1-216-091-00	METAL GLAZE	56K 5%	1/10W	R2573	1-216-082-00	METAL GLAZE	24K 5%	1/10W			
R2508	1-216-079-00	METAL GLAZE	18K 5%	1/10W	R2574	1-216-085-00	METAL GLAZE	33K 5%	1/10W			
R2509	1-216-130-11	METAL GLAZE	2.4M 5%	1/10W	R2575	1-216-089-00	METAL GLAZE	47K 5%	1/10W			
R2510	1-216-097-00	METAL GLAZE	100K 5%	1/10W	R2576	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2511	1-216-085-00	METAL GLAZE	33K 5%	1/10W	R2577	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2512	1-216-103-00	METAL GLAZE	180K 5%	1/10W	R2578	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2513	1-216-085-00	METAL GLAZE	33K 5%	1/10W	R2579	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2514	1-216-103-00	METAL GLAZE	180K 5%	1/10W	R2580	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2515	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2581	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2516	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	R2582	1-216-083-00	METAL GLAZE	27K 5%	1/10W			
R2517	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2583	1-216-083-00	METAL GLAZE	27K 5%	1/10W			
R2518	1-216-072-00	METAL GLAZE	9.1K 5%	1/10W	R2584	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2519	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2585	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2520	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2586	1-216-085-00	METAL GLAZE	33K 5%	1/10W			
R2521	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2587	1-216-085-00	METAL GLAZE	33K 5%	1/10W			
R2522	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	R2588	1-216-085-00	METAL GLAZE	33K 5%	1/10W			
R2523	1-216-077-00	METAL GLAZE	15K 5%	1/10W	R2589	1-216-081-00	METAL GLAZE	22K 5%	1/10W			
R2524	1-216-129-00	METAL GLAZE	2.2M 5%	1/10W	R2590	1-216-079-00	METAL GLAZE	18K 5%	1/10W			
R2526	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2591	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2527	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2592	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2528	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2593	1-216-079-00	METAL GLAZE	18K 5%	1/10W			
R2529	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2594	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2530	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2595	1-216-089-00	METAL GLAZE	47K 5%	1/10W			
R2531	1-216-089-00	METAL GLAZE	47K 5%	1/10W	R2596	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2532	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2597	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2533	1-216-089-00	METAL GLAZE	47K 5%	1/10W	R2598	1-216-089-00	METAL GLAZE	47K 5%	1/10W			
R2534	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2599	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2535	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2600	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2536	1-216-129-00	METAL GLAZE	2.2M 5%	1/10W	R2601	1-216-089-00	METAL GLAZE	47K 5%	1/10W			
R2537	1-216-077-00	METAL GLAZE	15K 5%	1/10W	R2602	1-216-073-00	METAL GLAZE	10K 5%	1/10W			
R2539	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	R2604	1-216-089-00	METAL GLAZE	47K 5%	1/10W			
R2540	1-216-075-00	METAL GLAZE	12K 5%	1/10W	R2605	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2541	1-216-069-00	METAL GLAZE	6.8K 5%	1/10W	R2606	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2542	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2610	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2543	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2611	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2544	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2612	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2545	1-216-048-00	METAL GLAZE	910 5%	1/10W	R2613	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2546	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2614	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2547	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2615	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2548	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2616	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2549	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	R2617	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W			
R2550	1-216-088-00	METAL GLAZE	43K 5%	1/10W	R2618	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W			
R2551	1-216-088-00	METAL GLAZE	43K 5%	1/10W	R2619	1-216-049-00	METAL GLAZE	1K 5%	1/10W			
R2552	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****							
R2553	1-216-078-00	METAL GLAZE	16K 5%	1/10W	*A-1316-149-A G BOARD, COMPLETE							
R2554	1-216-082-00	METAL GLAZE	24K 5%	1/10W	*****							
R2555	1-216-089-00	METAL GLAZE	47K 5%	1/10W	1-533-223-11 CLIP, FUSE 3-701-754-00 PLATE, INSULATING 4-382-854-11 SCREW (M3X10), P, SW (+)							
R2556	1-216-049-00	METAL GLAZE	1K 5%	1/10W	<CAPACITOR>							
R2557	1-216-085-00	METAL GLAZE	33K 5%	1/10W	C601	1-161-830-00	CERAMIC	4700PF	10%	500V		
R2558	1-216-088-00	METAL GLAZE	43K 5%	1/10W	C602	1-130-317-00	FILM	0.068MF	5%	100V		
R2559	1-216-091-00	METAL GLAZE	56K 5%	1/10W	C603	1-124-634-11	ELECT	1MF	20%	250V		
R2560	1-216-103-00	METAL GLAZE	180K 5%	1/10W	C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV		
R2561	1-216-097-00	METAL GLAZE	100K 5%	1/10W	C606	1-124-563-11	ELECT	2200MF	20%	25V		
R2562	1-216-089-00	METAL GLAZE	47K 5%	1/10W	C607	1-124-563-11	ELECT	2200MF	20%	25V		
R2563	1-216-088-00	METAL GLAZE	43K 5%	1/10W	C608	1-128-484-11	ELECT	100MF	20%	200V		
R2564	1-216-088-00	METAL GLAZE	43K 5%	1/10W	C609	1-137-141-11	FILM	0.082MF	3%	600V		
R2565	1-216-103-00	METAL GLAZE	180K 5%	1/10W	C612	1-124-962-11	ELECT	2200MF	20%	25V		
R2566	1-216-073-00	METAL GLAZE	10K 5%	1/10W								
R2567	1-216-073-00	METAL GLAZE	10K 5%	1/10W								
R2568	1-216-049-00	METAL GLAZE	1K 5%	1/10W								
R2569	1-216-097-00	METAL GLAZE	100K 5%	1/10W								
R2570	1-216-091-00	METAL GLAZE	56K 5%	1/10W								
R2571	1-216-078-00	METAL GLAZE	16K 5%	1/10W								

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

**Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

G

**G CR**

The components identified by **☒** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **☒** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

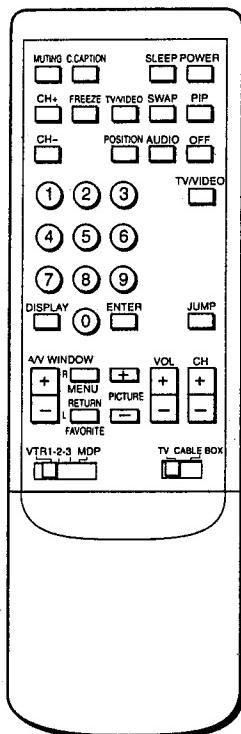
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
Q612	8-729-386-12	TRANSISTOR 2SB861-C		R666	1-249-377-11	CARBON	0.47 5% 1/4W F	
Q613	8-729-209-15	TRANSISTOR 2SD2012		R667 <b>△</b>	1-202-888-91	SOLID	2.2K 20% 1/2W F	
Q614	8-729-011-15	TRANSISTOR 2SC4582NP		R668 <b>△</b>	1-215-904-91	METAL OXIDE	100K 5% 2W F	
Q615	8-729-019-58	TRANSISTOR 2SA1208T-TP		R669	1-249-377-11	CARBON	0.47 5% 1/4W F	
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y		R675	1-249-377-11	CARBON	0.47 5% 1/4W F	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE		R687	1-249-417-11	CARBON	1K 5% 1/4W F	
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE		R689	1-247-742-11	CARBON	180 5% 1/2W F	
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE		R691	1-249-421-11	CARBON	2.2K 5% 1/4W F	
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE		R694	1-249-421-11	CARBON	2.2K 5% 1/4W F	
Q629	8-729-378-84	TRANSISTOR 2SD788-5		R697	1-249-382-11	CARBON	1.2 5% 1/4W F	
Q630	8-729-255-12	TRANSISTOR 2SC2551-0		R698	1-216-386-11	METAL OXIDE	0.56 5% 3W F	
<b>&lt;RESISTOR&gt;</b>								
R604	1-202-933-11	FUSIBLE	0.1 10%	1/2W F	<b>&lt;RELAY&gt;</b>			
R605	1-249-428-11	CARBON	8.2K 5%	1/4W	RY601 <b>△</b>	1-515-805-11	RELAY, POWER	
R606	1-214-919-00	METAL	180K 1%	1/2W	RY602 <b>△</b>	1-515-805-11	RELAY, POWER	
R609	1-249-434-11	CARBON	27K 5%	1/4W F	<b>&lt;TRANSFORMER&gt;</b>			
R610	1-215-469-00	METAL	100K 1%	1/4W	T601 <b>△</b>	1-450-791-12	TRANSFORMER, POWER ISOLATION	
R611	1-249-421-11	CARBON	2.2K 5%	1/4W F	T603 <b>△</b>	1-424-020-11	PTT	
R612	1-202-883-11	SOLID	680K 20%	1/2W	T604 <b>△</b>	1-450-149-11	TRANSFORMER, HEATER	
R613	1-216-386-11	METAL OXIDE	0.56 5%	3W F	T605 <b>△</b>	1-424-023-12	TRANSFORMER, LINE FILTER	
R614	1-249-418-11	CARBON	1.2K 5%	1/4W	T606 <b>△</b>	1-421-372-21	TRANSFORMER, FERRITE (LFT)	
R615	1-215-438-00	METAL	5.1K 1%	1/4W	<b>&lt;VARISTOR&gt;</b>			
R616	1-215-436-00	METAL	4.3K 1%	1/4W	VDR601 <b>△</b>	1-809-786-11	VARISTOR	
R617	1-216-356-00	METAL OXIDE	3.9 5%	1W F	*****			
R618	1-249-418-11	CARBON	1.2K 5%	1/4W	*****			
R619	1-216-444-11	METAL OXIDE	82K 5%	1W F	*****			
R620	1-249-418-11	CARBON	1.2K 5%	1/4W F	*****			
R621	1-247-691-11	CARBON	18 5%	1/4W F	*****			
R622	1-249-424-11	CARBON	3.9K 5%	1/4W F	*****			
R623	1-249-417-11	CARBON	1K 5%	1/4W	*****			
R624	1-214-780-00	METAL	130K 1%	1/4W	*****			
R625	1-216-386-11	METAL OXIDE	0.56 5%	3W F	*****			
R626	1-216-356-00	METAL OXIDE	3.9 5%	1W F	<b>&lt;CAPACITOR&gt;</b>			
R627	1-202-883-11	SOLID	680K 20%	1/2W	C701	1-162-115-00	CERAMIC	330PF 10% 2KV
R628	1-249-410-11	CARBON	270 5%	1/4W F	C702	1-123-948-00	ELCT	22MF 20% 250V
R629	1-207-620-00	WIREWOUND	1 10%	3W F	C703	1-102-050-00	CERAMIC	0.01MF 500V
R631	1-249-417-11	CARBON	1K 5%	1/4W F	C704	1-162-115-00	CERAMIC	330PF 10% 2KV
R632	1-214-913-00	METAL	100K 1%	1/2W	C705	1-130-479-00	MYLAR	0.0047MF 5% 50V
R633	1-249-429-11	CARBON	10K 5%	1/4W	C706	1-101-006-00	CERAMIC	0.047MF 50V
R634	1-249-441-11	CARBON	100K 5%	1/4W	C707	1-101-006-00	CERAMIC	0.047MF 50V
R635	1-215-897-11	METAL OXIDE	6.8K 5%	2W F	C709	1-124-120-11	ELECT	220MF 20% 16V
R636	1-260-065-11	CARBON	1.2 5%	1/2W	C710	1-124-120-11	ELECT	220MF 20% 16V
R638	1-249-405-11	CARBON	100 5%	1/4W F	C711	1-102-114-00	CERAMIC	470PF 10% 50V
R639	1-249-405-11	CARBON	100 5%	1/4W F	<b>&lt;CONNECTOR&gt;</b>			
R640	1-249-421-11	CARBON	2.2K 5%	1/4W F	CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
R641	1-249-429-11	CARBON	10K 5%	1/4W	CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
R642	1-215-421-00	METAL	1K 1%	1/4W	CR4	*1-564-511-31	PLUG, CONNECTOR 8P	
R643	1-260-123-11	CARBON	100K 5%	1/2W	CR15	*1-564-508-11	PLUG, CONNECTOR 5P	
R644	1-249-415-11	CARBON	680 5%	1/4W	<b>&lt;PICTURE TUBE SOCKET&gt;</b>			
R645	1-249-417-11	CARBON	1K 5%	1/4W	CRT701 <b>△</b>	1-251-026-11	SOCKET, PICTURE TUBE	
R649	1-249-424-11	CARBON	3.9K 5%	1/4W	<b>&lt;DIODE&gt;</b>			
R650	1-249-377-11	CARBON	0.47 5%	1/4W F	D701	8-719-911-19	DIODE 1SS119	
R651	1-215-429-00	METAL	2.2K 1%	1/4W	D702	8-719-911-19	DIODE 1SS119	
<b>R652 <b>△</b></b>	<b>METAL</b>	<b>METAL</b>	<b>1/4W</b>	D703	8-719-911-19	DIODE 1SS119		
R654	1-215-429-00	METAL	2.2K 1%	1/4W				
R655	1-249-426-11	CARBON	5.6K 5%	1/4W				
R656	1-215-454-00	METAL	24K 1%	1/4W				
R657	1-216-386-11	METAL OXIDE	0.56 5%	3W F				
R660	1-249-418-11	CARBON	1.2K 5%	1/4W				
R661 <b>△</b>	1-202-884-91	SOLID	820K 20%	1/2W				
R662 <b>△</b>	1-205-900-11	WIREWOUND	1.2 5%	15W				
R663 <b>△</b>	1-215-904-91	METAL OXIDE	100K 5%	2W F				

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

**Les composants identifies par une trame et une marque sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

CR | CG

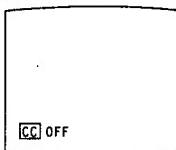
## Using Closed Caption



**1** Press C.CAPTION.

The closed caption mode appears. CC1, CC2, TEXT1, TEXT2 or CC OFF appears in sequence each time you press C.CAPTION.

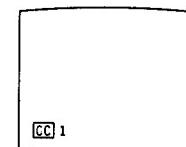
CC OFF → CC 1 → CC 2 → TEXT 1 → TEXT 2



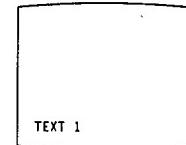
**2** Press C.CAPTION repeatedly.



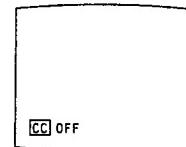
Select CC1 or CC2 to view Captions.  
A Caption is a printed version of the dialogue or sound effects of a program.  
(The mode should be set to CC1 for most programs.)



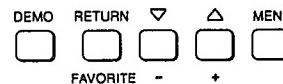
Select TEXT1 or TEXT2 to view Text.  
Text is information that is presented using the half to full television screen.  
It is usually not related to the program.



Select CC OFF if you don't want to view Closed Caption nor Text.



## Using Convenient Features



**Muting the sound — MUTING**

Press MUTING.  
"MUTING" appears on the screen.



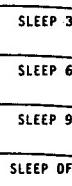
To restore the sound  
Press MUTING again, or press VOL +.



**Keeping the displays on-screen — DISPLAY**

Press DISPLAY.  
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

To turn off the displays  
Press DISPLAY again.



**Setting the sleep timer — SLEEP**

The sleep timer turns off the projection TV automatically after the amount of time you select.

Press SLEEP.  
Each time you press SLEEP, the time increments "30", "60", "90" and "OFF" mode appear in sequence.



A red "SLEEP" display appears about one minute before the projection TV goes off.

To cancel the setting.  
Press SLEEP until OFF mode appears.  
A green "SLEEP OFF" display appears for about three seconds.

OR  
Turn the projection TV off.  
The sleep timer setting is cancelled.



**Switching quickly between two channels — JUMP**

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously  
Press JUMP.

To switch back to the first channel  
Press JUMP again.



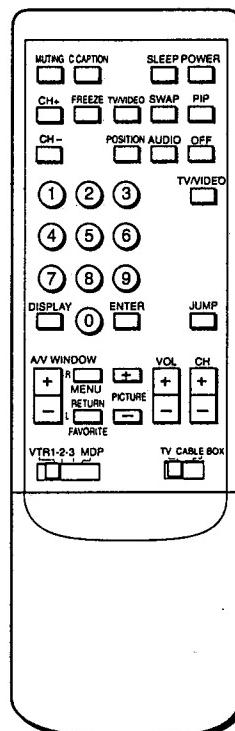
**Previewing the features — DEMO**

Press DEMO (front inner panel).  
Functions and menus are displayed one by one.

To restart DEMO from the beginning  
Press DEMO again.

To stop DEMO  
Press any button.

Front inner panel



**CG CB V**

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R739	1-249-405-11	CARBON	100 5% 1/4W F			<COIL>	
R740	1-215-927-00	METAL OXIDE	47K 5% 3W F	L761	1-408-429-00	INDUCTOR 470UH	
R741	1-249-405-11	CARBON	100 5% 1/4W F	L762	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
R742	1-249-421-11	CARBON	2.2K 5% 1/4W F	L763	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
R744	1-249-401-11	CARBON	47 5% 1/4W	L764	1-408-413-00	INDUCTOR 22UH	
R745	1-215-455-00	METAL	27K 1% 1/4W			<NEON LAMP>	
R746	1-249-405-11	CARBON	100 5% 1/4W	NL761	1-519-108-99	LAMP, NEON	
R747	1-249-403-11	CARBON	68 5% 1/4W	NL762	1-519-108-99	LAMP, NEON	
R748	1-249-412-11	CARBON	390 5% 1/4W			<TRANSISTOR>	
R749	1-249-410-11	CARBON	270 5% 1/4W	Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R750	1-249-405-11	CARBON	100 5% 1/4W	Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R751	1-249-409-11	CARBON	220 5% 1/4W	Q763	8-729-119-80	TRANSISTOR 2SC2688-LK	
R752	1-215-423-00	METAL	1.2K 1% 1/4W	Q764	8-729-255-12	TRANSISTOR 2SC2551-O	
R754	1-215-429-00	METAL	2.2K 1% 1/4W	Q765	8-729-200-17	TRANSISTOR 2SA1091-O	
				Q766	8-729-200-17	TRANSISTOR 2SA1091-O	
*****							
<b>*A-1331-261-A CB BOARD, COMPLETE</b>				<b>&lt;RESISTOR&gt;</b>			
*****				R761	1-202-847-00	SOLID	560K 20% 1/2W
4-373-933-01 SHEET (TRANSISTOR), BN				R762	1-202-814-11	SOLID	33K 20% 1/2W
4-382-854-11 SCRBW (M3X10), P, SW (+)				R763	1-202-818-00	SOLID	1K 20% 1/2W
				R764	1-202-842-11	SOLID	220K 20% 1/2W
				R765	1-202-828-11	SOLID	6.8K 20% 1/2W
*****							
<b>&lt;CAPACITOR&gt;</b>							
C761	1-162-115-00	CERAMIC	330PF 10% 2KV	R766	1-202-561-00	SOLID	330 20% 1/2W
C762	1-123-948-00	ELECT	22MF 20% 250V	R767	1-216-510-11	METAL OXIDE	8.2K 5% 5W F
C763	1-102-050-00	CERAMIC	0.01MF 500V	R768	1-249-405-11	CARBON	100 5% 1/4W F
C764	1-162-115-00	CERAMIC	330PF 10% 2KV	R769	1-249-405-11	CARBON	100 5% 1/4W F
C765	1-130-479-00	MYLAR	0.0047MF 5% 50V	R770	1-215-927-00	METAL OXIDE	47K 5% 3W F
C766	1-101-006-00	CERAMIC	0.047MF 50V	R771	1-249-405-11	CARBON	100 5% 1/4W F
C767	1-101-006-00	CERAMIC	0.047MF 50V	R772	1-249-421-11	CARBON	2.2K 5% 1/4W F
C769	1-124-120-11	ELECT	220MF 20% 16V	R773	1-249-413-11	CARBON	470 5% 1/4W
C770	1-124-120-11	ELECT	220MF 20% 16V	R774	1-249-401-11	CARBON	47 5% 1/4W
C771	1-102-114-00	CERAMIC	470PF 10% 50V	R776	1-249-405-11	CARBON	100 5% 1/4W
				R777	1-249-403-11	CARBON	68 5% 1/4W
<CONNECTOR>							
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R778	1-249-412-11	CARBON	390 5% 1/4W
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R779	1-249-415-11	CARBON	680 5% 1/4W
CB4	*1-564-511-11	PLUG, CONNECTOR 8P		R780	1-249-405-11	CARBON	100 5% 1/4W
CB5	*1-564-511-21	PLUG, CONNECTOR 8P		R781	1-249-409-11	CARBON	220 5% 1/4W
CB17	*1-564-508-11	PLUG, CONNECTOR 5P		R782	1-215-423-00	METAL	1.2K 1% 1/4W
				R783	1-215-433-00	METAL	3.3K 1% 1/4W
				R784	1-215-429-00	METAL	2.2K 1% 1/4W
				R785	1-215-418-00	METAL	750 1% 1/4W
*****							
<b>&lt;PICTURE TUBE SOCKET&gt;</b>							
CRT761▲ 1-251-026-11 SOCKET, PICTURE TUBE							
*****							
<b>&lt;DIODE&gt;</b>							
D761	8-719-911-19	DIODE	ISS119	C1501	1-102-129-00	CERAMIC	0.01MF 10% 50V
D762	8-719-911-19	DIODE	ISS119	C1502	1-126-101-11	ELECT	100MF 20% 16V
D763	8-719-911-19	DIODE	ISS119	C1504	1-106-383-00	MYLAR	0.047MF 200V
D764	8-719-911-19	DIODE	ISS119	C1505	1-124-907-11	ELECT	10MF 20% 50V
D765	8-719-911-19	DIODE	ISS119	C1506	1-106-359-00	MYLAR	0.0047MF 10% 200V
D766	8-719-911-19	DIODE	ISS119				
D768	8-719-911-19	DIODE	ISS119				
D769	8-719-109-81	DIODE	RD4.7ES-B2				
*****							
<b>*A-1342-214-A V BOARD, COMPLETE</b>							
*****							
<b>*4-395-527-01 HOLDER (B), TR</b>							
*****							
<b>&lt;CAPACITOR&gt;</b>							



**V D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1573	1-215-375-00	METAL	12 1% 1/4W	C1705	1-102-963-00	CERAMIC	33PF 5% 50V
R1574	1-215-375-00	METAL	12 1% 1/4W	C1706	1-102-963-00	CERAMIC	33PF 5% 50V
R1575	1-215-375-00	METAL	12 1% 1/4W	C1707	1-102-963-00	CERAMIC	33PF 5% 50V
R1576	1-215-445-00	METAL	10K 1% 1/4W	C1708	1-102-963-00	CERAMIC	33PF 5% 50V
R1577	1-215-445-00	METAL	10K 1% 1/4W	C1709	1-102-963-00	CERAMIC	33PF 5% 50V
R1578	1-249-417-11	CARBON	1K 5% 1/4W	C1710	1-102-963-00	CERAMIC	33PF 5% 50V
R1579	1-249-417-11	CARBON	1K 5% 1/4W	C1711	1-126-233-11	ELECT	22MF 20% 50V
R1580	1-249-417-11	CARBON	1K 5% 1/4W	C1712	1-124-916-11	ELECT	22MF 20% 25V
R1581	1-249-432-11	CARBON	18K 5% 1/4W	C1713	1-102-074-00	CERAMIC	0.001MF 10% 50V
R1582	1-249-432-11	CARBON	18K 5% 1/4W	C1714	1-124-478-11	ELECT	100MF 20% 25V
				C1715	1-124-478-11	ELECT	100MF 20% 25V
<CONNECTOR>							
V2	*1-564-518-11	PLUG, CONNECTOR 3P		C1716	1-126-803-11	ELECT	47MF 20% 25V
V22	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P		C1717	1-126-803-11	ELECT	47MF 20% 25V
*****							
*A-1346-117-A D BOARD, COMPLETE				C1718	1-102-074-00	CERAMIC	0.001MF 10% 50V
*****				C1719	1-124-234-00	ELECT	22MF 20% 16V
1-533-223-11 CLIP, FUSE				C1720	1-130-491-00	MYLAR	0.047MF 5% 50V
4-382-854-11 SCREW (M3X10), P, SW (+)				C1721	1-130-491-00	MYLAR	0.047MF 5% 50V
#4-395-527-01 HOLDER (B), TR				C1722	1-130-491-00	MYLAR	0.047MF 5% 50V
*****				C1724	1-124-234-00	ELECT	22MF 20% 16V
C901 1-126-320-11 ELECT 10MF 20% 16V				C1725	1-102-963-00	CERAMIC	33PF 5% 50V
C902 1-124-477-11 ELECT 47MF 20% 16V				C1726	1-124-122-11	ELECT	100MF 20% 35V
C903 1-130-471-00 MYLAR 0.001MF 5% 50V				C1727	1-102-963-00	CERAMIC	33PF 5% 50V
C904 1-130-471-00 MYLAR 0.001MF 5% 50V				C1728	1-102-963-00	CERAMIC	33PF 5% 50V
C905 1-124-477-11 ELECT 47MF 20% 16V				C1729	1-108-426-91	MYLAR	0.027MF 200V
C906 1-126-233-11 ELECT 22MF 20% 50V				C1730	1-102-963-00	CERAMIC	33PF 5% 50V
C907 1-126-101-11 ELECT 100MF 20% 16V				C1731	1-124-122-11	ELECT	100MF 20% 35V
C908 1-124-907-11 ELECT 10MF 20% 50V				C1732	1-108-426-91	MYLAR	0.027MF 200V
C910 1-130-483-00 MYLAR 0.01MF 5% 50V				C1733	1-102-963-00	CERAMIC	33PF 5% 50V
C911 1-131-341-00 TANTALUM 0.1MF 20% 16V				C1734	1-102-963-00	CERAMIC	33PF 5% 50V
C912 1-124-903-11 ELECT 1MF 20% 50V				C1735	1-124-122-11	ELECT	100MF 20% 35V
C913 1-126-233-11 ELECT 22MF 20% 50V				C1736	1-108-426-91	MYLAR	0.027MF 200V
C914 1-126-803-11 ELECT 47MF 20% 16V				C1737	1-124-937-11	ELECT	10MF 20% 16V
C915 1-124-927-11 ELECT 4.7MF 20% 50V				C1738	1-124-122-11	ELECT	100MF 20% 35V
C916 1-102-074-00 CERAMIC 0.001MF 10% 50V				C1739	1-136-153-00	FILM	0.01MF 5% 50V
C917 1-130-471-00 MYLAR 0.001MF 5% 50V				C1740	1-124-122-11	ELECT	100MF 20% 35V
C918 1-102-963-00 CERAMIC 33PF 5% 50V				C1741	1-124-122-11	ELECT	100MF 20% 35V
C919 1-102-963-00 CERAMIC 33PF 5% 50V				C1742	1-126-104-11	ELECT	470MF 20% 35V
C920 1-102-963-00 CERAMIC 33PF 5% 50V				C1744	1-124-478-11	ELECT	100MF 20% 25V
C921 1-102-963-00 CERAMIC 33PF 5% 50V				C1745	1-126-375-11	ELECT	100MF 20% 25V
C922 1-102-963-00 CERAMIC 33PF 5% 50V				C1755	1-106-220-00	MYLAR	0.1MF 10% 100V
C923 1-102-963-00 CERAMIC 33PF 5% 50V				C1756	1-106-220-00	MYLAR	0.1MF 10% 100V
C931 1-102-973-00 CERAMIC 100PF 5% 50V				C1757	1-106-220-00	MYLAR	0.1MF 10% 100V
C932 1-124-903-11 ELECT 1MF 20% 50V				C1758	1-106-220-00	MYLAR	0.1MF 10% 100V
C933 1-124-234-00 ELECT 22MF 20% 16V				C1759	1-106-220-00	MYLAR	0.1MF 10% 100V
C934 1-124-234-00 ELECT 22MF 20% 16V				C1760	1-106-220-00	MYLAR	0.1MF 10% 100V
C935 1-124-234-00 ELECT 22MF 20% 16V				C1763	1-126-096-11	ELECT	10MF 20% 25V
C936 1-124-234-00 ELECT 22MF 20% 16V				C1764	1-124-477-11	ELECT	47MF 20% 16V
C937 1-124-234-00 ELECT 22MF 20% 16V				C1765	1-124-477-11	ELECT	47MF 20% 16V
C938 1-124-234-00 ELECT 22MF 20% 16V				C1766	1-126-101-11	ELECT	100MF 20% 16V
C939 1-124-234-00 ELECT 22MF 20% 16V				C1769	1-126-157-11	ELECT	10MF 20% 16V
C940 1-124-916-11 ELECT 22MF 20% 25V				C1770	1-130-495-00	MYLAR	0.1MF 5% 50V
C941 1-102-123-00 CERAMIC 0.0033MF 10% 50V				<CONNECTOR>			
C942 1-102-123-00 CERAMIC 0.0033MF 10% 50V				D1	*1-564-510-11	PLUG, CONNECTOR 7P	
C943 1-102-123-00 CERAMIC 0.0033MF 10% 50V				D2	*1-564-511-11	PLUG, CONNECTOR 8P	
C1701 1-124-907-11 ELECT 10MF 20% 50V				D3	*1-564-512-11	PLUG, CONNECTOR 9P	
C1702 1-124-907-11 ELECT 10MF 20% 50V				D4	*1-564-508-11	PLUG, CONNECTOR 5P	
C1703 1-124-907-11 ELECT 10MF 20% 50V				D5	*1-564-511-11	PLUG, CONNECTOR 8P	
C1704 1-123-875-11 ELECT 10MF 20% 50V				D6	1-691-169-11	PIN, CONNECTOR 12P	

D

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;COIL&gt;</b>											
D7	*1-564-507-11	PLUG, CONNECTOR 4P		L901	1-459-313-00	COIL WITH CORE (HWC)					
D8	*1-564-506-11	PLUG, CONNECTOR 3P		L902	1-459-313-00	COIL WITH CORE (HWC)					
D9	*1-564-507-11	PLUG, CONNECTOR 4P		L903	1-459-313-00	COIL WITH CORE (HWC)					
D14	*1-564-513-31	PLUG, CONNECTOR 10P		L904	1-459-313-00	COIL WITH CORE (HWC)					
<b>&lt;DIODE&gt;</b>											
D901	8-719-911-19	DIODE ISS119		<b>&lt;TRANSISTOR&gt;</b>							
D902	8-719-911-19	DIODE ISS119		Q902	8-729-900-89	TRANSISTOR DTC144ES					
D1701	8-719-900-95	DIODE V09G		Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1702	8-719-911-19	DIODE ISS119		Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1703	8-719-900-95	DIODE V09G		Q908	8-729-900-89	TRANSISTOR DTC144ES					
D1704	8-719-900-95	DIODE V09G		Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1705	8-719-900-95	DIODE V09G		Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1706	8-719-900-95	DIODE V09G		Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D1707	8-719-911-19	DIODE ISS119		Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D1708	8-719-911-19	DIODE ISS119		<b>&lt;RESISTOR&gt;</b>							
D1709	8-719-911-19	DIODE ISS119		R901	1-215-463-00	METAL 56K 1% 1/4W					
D1710	8-719-911-19	DIODE ISS119		R902	1-215-463-00	METAL 56K 1% 1/4W					
D1711	8-719-911-19	DIODE ISS119		R903	1-215-449-00	METAL 15K 1% 1/4W					
D1712	8-719-911-19	DIODE ISS119		R904	1-215-455-00	METAL 27K 1% 1/4W					
D1713	8-719-911-19	DIODE ISS119		R905	1-215-449-00	METAL 15K 1% 1/4W					
D1714	8-719-911-19	DIODE ISS119		R906	1-215-469-00	METAL 100K 1% 1/4W					
D1715	8-719-911-19	DIODE ISS119		R907	1-215-469-00	METAL 100K 1% 1/4W					
D1716	8-719-911-19	DIODE ISS119		R908	1-215-469-00	METAL 100K 1% 1/4W					
D1717	8-719-911-19	DIODE ISS119		R909	1-215-473-00	METAL 150K 1% 1/4W					
D1718	8-719-911-19	DIODE ISS119		R910	1-215-437-00	METAL 4.7K 1% 1/4W					
D1720	8-719-109-50	DIODE RD2.OES-B1		R911	1-215-453-00	METAL 22K 1% 1/4W					
D1721	8-719-109-50	DIODE RD2.OES-B1		R912	1-215-453-00	METAL 22K 1% 1/4W					
D1722	8-719-109-50	DIODE RD2.OES-B1		R913	1-215-437-00	METAL 4.7K 1% 1/4W					
D1723	8-719-109-50	DIODE RD2.OES-B1		R914	1-215-453-00	METAL 22K 1% 1/4W					
<b>&lt;FUSE&gt;</b>											
F901	A-1-532-745-11	FUSE, GLASS TUBE 3.15A/125V		R915	1-215-413-00	METAL 470 1% 1/4W					
F902	A-1-532-745-11	FUSE, GLASS TUBE 3.15A/125V		R916	1-215-457-00	METAL 33K 1% 1/4W					
<b>&lt;IC&gt;</b>											
IC901	8-759-145-58	IC UPC4558C		R917	1-215-453-00	METAL 22K 1% 1/4W					
IC902	8-752-033-68	IC CXA1268P		R919	1-215-399-00	METAL 120 1% 1/4W					
IC903	8-759-701-56	IC NJM78M05FA		R920	1-215-399-00	METAL 120 1% 1/4W					
IC904	8-759-701-65	IC NJM79M05FA		R921	1-215-399-00	METAL 120 1% 1/4W					
IC905	8-759-701-89	IC NJM7915FA		R922	1-215-399-00	METAL 120 1% 1/4W					
IC906	8-759-148-84	IC UPC2415HF		R923	1-215-441-00	METAL 6.8K 1% 1/4W					
IC907	8-759-140-53	IC UPD4053BC		R924	1-215-441-00	METAL 6.8K 1% 1/4W					
IC908	8-759-145-58	IC UPC4558C		R925	1-215-441-00	METAL 6.8K 1% 1/4W					
IC910	8-759-054-40	IC PA0036		R926	1-215-463-00	METAL 56K 1% 1/4W					
IC1701	8-759-602-19	IC M5220L		R927	1-215-463-00	METAL 56K 1% 1/4W					
IC1702	8-759-602-19	IC M5220L		R928	1-215-461-00	METAL 47K 1% 1/4W					
IC1703	8-759-602-19	IC M5220L		R929	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1704	8-749-923-16	IC STK4278-L		R930	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1705	8-749-923-16	IC STK4278-L		R931	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1706	8-759-113-13	IC UPC1498H		R932	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1707	8-759-113-13	IC UPC1498H		R933	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1709	8-759-145-58	IC UPC4558C		R934	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1710	8-759-145-58	IC UPC4558C		R935	1-215-439-00	METAL 5.6K 1% 1/4W					
IC1714	8-759-145-58	IC UPC4558C		R936	1-215-439-00	METAL 5.6K 1% 1/4W					
IC1708	8-759-113-13	IC UPC1498H		R937	1-215-439-00	METAL 5.6K 1% 1/4W					
IC1709	8-759-145-58	IC UPC4558C		R938	1-215-417-00	METAL 680 1% 1/4W					
IC1710	8-759-145-58	IC UPC4558C		R939	1-215-433-00	METAL 3.3K 1% 1/4W					
IC1714	8-759-145-58	IC UPC4558C		R940	1-215-429-00	METAL 2.2K 1% 1/4W					
IC1715	8-759-145-58	IC UPC4558C		R941	1-215-441-00	METAL 6.8K 1% 1/4W					
IC1718	8-759-145-58	IC UPC4558C		R942	1-215-451-00	METAL 18K 1% 1/4W					
				R943	1-215-441-00	METAL 6.8K 1% 1/4W					
				R944	1-215-439-00	METAL 5.6K 1% 1/4W					
				R945	1-215-445-00	METAL 10K 1% 1/4W					
				R946	1-215-445-00	METAL 10K 1% 1/4W					
				R947	1-215-439-00	METAL 5.6K 1% 1/4W					

**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R948	1-215-447-00	METAL	12K 1% 1/4W	R1714	1-249-411-11	CARBON	330 5% 1/4W
R949	1-215-439-00	METAL	5.6K 1% 1/4W	R1715	1-249-411-11	CARBON	330 5% 1/4W
R950	1-215-429-00	METAL	2.2K 1% 1/4W	R1716	1-215-886-11	METAL OXIDE	100 5% 2W F
R951	1-215-429-00	METAL	2.2K 1% 1/4W	R1717	1-249-411-11	CARBON	330 5% 1/4W
R952	1-215-429-00	METAL	2.2K 1% 1/4W	R1718	1-249-417-11	CARBON	1K 5% 1/4W
R953	1-215-439-00	METAL	5.6K 1% 1/4W	R1719	1-214-792-00	METAL	1 1% 1/2W
R954	1-215-439-00	METAL	5.6K 1% 1/4W	R1720	1-249-411-11	CARBON	330 5% 1/4W
R955	1-215-435-00	METAL	3.9K 1% 1/4W	R1721	1-249-417-11	CARBON	1K 5% 1/4W
R956	1-215-437-00	METAL	4.7K 1% 1/4W	R1722	1-249-411-11	CARBON	330 5% 1/4W
R957	1-215-441-00	METAL	6.8K 1% 1/4W	R1723	1-249-417-11	CARBON	1K 5% 1/4W
R958	1-215-437-00	METAL	4.7K 1% 1/4W	R1724	1-215-886-11	METAL OXIDE	100 5% 2W F
R959	1-215-439-00	METAL	5.6K 1% 1/4W	R1725	1-215-886-11	METAL OXIDE	100 5% 2W F
R960	1-215-439-00	METAL	5.6K 1% 1/4W	R1726	1-215-886-11	METAL OXIDE	100 5% 2W F
R961	1-215-439-00	METAL	5.6K 1% 1/4W	R1727	1-214-792-00	METAL	1 1% 1/2W
R962	1-215-441-00	METAL	6.8K 1% 1/4W	R1728	1-214-792-00	METAL	1 1% 1/2W
R963	1-215-441-00	METAL	6.8K 1% 1/4W	R1729	1-214-792-00	METAL	1 1% 1/2W
R964	1-215-441-00	METAL	6.8K 1% 1/4W	R1730	1-249-405-11	CARBON	100 5% 1/4W
R965	1-215-909-11	METAL OXIDE	47 5% 3W F	R1731	1-249-417-11	CARBON	1K 5% 1/4W
R966	1-215-469-00	METAL	100K 1% 1/4W	R1732	1-249-405-11	CARBON	100 5% 1/4W
R967	1-215-421-00	METAL	1K 1% 1/4W	R1733	1-249-405-11	CARBON	100 5% 1/4W
R968	1-215-437-00	METAL	4.7K 1% 1/4W	R1734	1-249-405-11	CARBON	100 5% 1/4W
R969	1-249-421-11	CARBON	2.2K 5% 1/4W	R1735	1-249-405-11	CARBON	100 5% 1/4W
R970	1-215-909-11	METAL OXIDE	47 5% 3W F	R1736	1-249-423-11	CARBON	3.3K 5% 1/4W
R971	1-249-421-11	CARBON	2.2K 5% 1/4W	R1737	1-249-423-11	CARBON	3.3K 5% 1/4W
R972	1-249-431-11	CARBON	15K 5% 1/4W	R1738	1-249-423-11	CARBON	3.3K 5% 1/4W
R973	1-249-431-11	CARBON	15K 5% 1/4W	R1739	1-249-423-11	CARBON	3.3K 5% 1/4W
R974	1-215-399-00	METAL	120 1% 1/4W	R1740	1-249-417-11	CARBON	1K 5% 1/4W
R975	1-215-399-00	METAL	120 1% 1/4W	R1741	1-249-423-11	CARBON	3.3K 5% 1/4W
R976	1-215-399-00	METAL	120 1% 1/4W	R1742	1-249-423-11	CARBON	3.3K 5% 1/4W
R977	1-215-399-00	METAL	120 1% 1/4W	R1743	1-249-417-11	CARBON	1K 5% 1/4W
R978	1-215-399-00	METAL	120 1% 1/4W	R1744	1-249-411-11	CARBON	330 5% 1/4W
R979	1-215-399-00	METAL	120 1% 1/4W	R1745	1-249-405-11	CARBON	100 5% 1/4W
R980	1-215-399-00	METAL	120 1% 1/4W	R1746	1-214-792-00	METAL	1 1% 1/2W
R981	1-215-399-00	METAL	120 1% 1/4W	R1747	1-215-886-11	METAL OXIDE	100 5% 2W F
R982	1-249-431-11	CARBON	15K 5% 1/4W	R1748	1-215-421-00	METAL	1K 1% 1/4W
R983	1-249-431-11	CARBON	15K 5% 1/4W	R1749	1-215-421-00	METAL	1K 1% 1/4W
R984	1-214-804-11	METAL	3.3 1% 1/2W	R1750	1-215-421-00	METAL	1K 1% 1/4W
R985	1-214-804-11	METAL	3.3 1% 1/2W	R1751	1-215-421-00	METAL	1K 1% 1/4W
R986	1-214-804-11	METAL	3.3 1% 1/2W	R1752	1-215-421-00	METAL	1K 1% 1/4W
R987	1-215-421-00	METAL	1K 1% 1/4W	R1753	1-215-421-00	METAL	1K 1% 1/4W
R988	1-215-421-00	METAL	1K 1% 1/4W	R1754	1-214-792-00	METAL	1 1% 1/2W
R989	1-215-421-00	METAL	1K 1% 1/4W	R1755	1-215-469-00	METAL	100K 1% 1/4W
R990	1-215-421-00	METAL	1K 1% 1/4W	R1756	1-215-437-00	METAL	4.7K 1% 1/4W
R991	1-215-421-00	METAL	1K 1% 1/4W	R1757	1-215-437-00	METAL	4.7K 1% 1/4W
R992	1-215-421-00	METAL	1K 1% 1/4W	R1758	1-215-437-00	METAL	4.7K 1% 1/4W
R993	1-249-429-11	CARBON	10K 5% 1/4W	R1759	1-249-405-11	CARBON	100 5% 1/4W
R994	1-249-429-11	CARBON	10K 5% 1/4W	R1760	1-249-427-11	CARBON	6.8K 5% 1/4W
R995	1-215-457-00	METAL	33K 1% 1/4W	R1761	1-249-419-11	CARBON	1.5K 5% 1/4W
R997	1-215-463-00	METAL	56K 1% 1/4W	R1762	1-215-445-00	METAL	10K 1% 1/4W
R998	1-215-409-00	METAL	330 1% 1/4W	R1763	1-249-427-11	CARBON	6.8K 5% 1/4W
R999	1-215-455-00	METAL	27K 1% 1/4W	R1764	1-249-419-11	CARBON	1.5K 5% 1/4W
R1001	1-249-411-11	CARBON	330 5% 1/4W	R1765	1-249-419-11	CARBON	1.5K 5% 1/4W
R1002	1-249-427-11	CARBON	6.8K 5% 1/4W	R1766	1-249-427-11	CARBON	6.8K 5% 1/4W
R1003	1-249-427-11	CARBON	6.8K 5% 1/4W	R1767	1-249-427-11	CARBON	6.8K 5% 1/4W
R1004	1-249-411-11	CARBON	330 5% 1/4W	R1768	1-249-439-11	CARBON	68K 5% 1/4W
R1005	1-249-411-11	CARBON	330 5% 1/4W	R1769	1-215-445-00	METAL	10K 1% 1/4W
R1006	1-249-427-11	CARBON	6.8K 5% 1/4W	R1770	1-249-405-11	CARBON	100 5% 1/4W
R1007	1-249-411-11	CARBON	330 5% 1/4W	R1771	1-249-405-11	CARBON	100 5% 1/4W
R1008	1-249-427-11	CARBON	6.8K 5% 1/4W	R1772	1-215-429-00	METAL	2.2K 1% 1/4W
R1009	1-249-427-11	CARBON	6.8K 5% 1/4W	R1773	1-215-429-00	METAL	2.2K 1% 1/4W
R1010	1-249-411-11	CARBON	330 5% 1/4W	R1774	1-215-421-00	METAL	1K 1% 1/4W
R1011	1-249-411-11	CARBON	330 5% 1/4W	R1775	1-249-429-11	CARBON	10K 5% 1/4W
R1012	1-249-427-11	CARBON	6.8K 5% 1/4W	R1776	1-215-421-00	METAL	1K 1% 1/4W
R1013	1-215-886-11	METAL OXIDE	100 5% 2W F				

D

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK	
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	R1861	1-215-453-00	METAL	22K	1% 1/4W
R1778	1-215-421-00	METAL	1K	1%	1/4W	R1862	1-215-453-00	METAL	22K	1% 1/4W
R1779	1-215-898-11	METAL OXIDE	10K	5%	2W	R1863	1-215-397-00	METAL	100	1% 1/4W
R1780	1-214-804-11	METAL	3.3	1%	1/2W	R1864	1-215-437-00	METAL	4.7K	1% 1/4W
R1781	1-214-804-11	METAL	3.3	1%	1/2W	R1865	1-215-453-00	METAL	22K	1% 1/4W
R1782	1-215-898-11	METAL OXIDE	10K	5%	2W	R1866	1-215-453-00	METAL	22K	1% 1/4W
R1783	1-214-804-11	METAL	3.3	1%	1/2W	R1867	1-215-437-00	METAL	4.7K	1% 1/4W
R1784	1-214-804-11	METAL	3.3	1%	1/2W	R1868	1-215-439-00	METAL	5.6K	1% 1/4W
R1785	1-215-898-11	METAL OXIDE	10K	5%	2W	R1869	1-215-445-00	METAL	10K	1% 1/4W
R1786	1-214-804-11	METAL	3.3	1%	1/2W	R1870	1-215-445-00	METAL	10K	1% 1/4W
R1787	1-214-804-11	METAL	3.3	1%	1/2W	R1871	1-215-445-00	METAL	10K	1% 1/4W
R1788	1-249-433-11	CARBON	22K	5%	1/4W	R1872	1-215-437-00	METAL	4.7K	1% 1/4W
R1789	1-249-441-11	CARBON	100K	5%	1/4W	R1873	1-215-437-00	METAL	4.7K	1% 1/4W
R1790	1-249-433-11	CARBON	22K	5%	1/4W	R1874	1-215-437-00	METAL	4.7K	1% 1/4W
R1791	1-249-429-11	CARBON	10K	5%	1/4W	R1875	1-215-437-00	METAL	4.7K	1% 1/4W
R1792	1-215-445-00	METAL	10K	1%	1/4W	R1876	1-215-437-00	METAL	4.7K	1% 1/4W
R1793	1-249-405-11	CARBON	100	5%	1/4W	R1877	1-215-437-00	METAL	4.7K	1% 1/4W
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	R1878	1-215-475-00	METAL	180K	1% 1/4W
R1795	1-249-433-11	CARBON	22K	5%	1/4W	R1879	1-215-475-00	METAL	180K	1% 1/4W
R1796	1-249-405-11	CARBON	100	5%	1/4W	R1880	1-215-475-00	METAL	180K	1% 1/4W
R1797	1-249-429-11	CARBON	10K	5%	1/4W	R1881	1-215-461-00	METAL	47K	1% 1/4W
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	R1882	1-215-445-00	METAL	10K	1% 1/4W
R1800	1-249-405-11	CARBON	100	5%	1/4W	R1883	1-215-453-00	METAL	22K	1% 1/4W
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	R1884	1-215-397-00	METAL	100	1% 1/4W
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	R1885	1-215-445-00	METAL	10K	1% 1/4W
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	R1886	1-215-445-00	METAL	10K	1% 1/4W
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	R1887	1-215-397-00	METAL	100	1% 1/4W
R1806	1-249-405-11	CARBON	100	5%	1/4W	R1888	1-215-461-00	METAL	47K	1% 1/4W
R1807	1-249-405-11	CARBON	100	5%	1/4W	R1889	1-215-457-00	METAL	33K	1% 1/4W
R1808	1-214-792-00	METAL	1	1%	1/2W	R1890	1-215-457-00	METAL	33K	1% 1/4W
R1809	1-214-792-00	METAL	1	1%	1/2W	R1891	1-215-443-00	METAL	8.2K	1% 1/4W
R1810	1-214-792-00	METAL	1	1%	1/2W	R1892	1-215-445-00	METAL	10K	1% 1/4W
R1811	1-214-792-00	METAL	1	1%	1/2W	R1894	1-215-429-00	METAL	2.2K	1% 1/4W
R1812	1-214-792-00	METAL	1	1%	1/2W	R1895	1-215-445-00	METAL	10K	1% 1/4W
R1813	1-214-792-00	METAL	1	1%	1/2W	R1896	1-215-445-00	METAL	10K	1% 1/4W
R1814	1-249-431-11	CARBON	15K	5%	1/4W	R1897	1-215-449-00	METAL	15K	1% 1/4W
R1815	1-247-885-00	CARBON	180K	5%	1/4W	R1898	1-215-445-00	METAL	10K	1% 1/4W
R1816	1-249-431-11	CARBON	15K	5%	1/4W	R1899	1-215-421-00	METAL	1K	1% 1/4W
R1817	1-247-885-00	CARBON	180K	5%	1/4W	R1900	1-215-429-00	METAL	2.2K	1% 1/4W
R1818	1-249-405-11	CARBON	100	5%	1/4W	R1901	1-215-449-00	METAL	15K	1% 1/4W
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	R1902	1-215-445-00	METAL	10K	1% 1/4W
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	R1903	1-215-445-00	METAL	10K	1% 1/4W
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	R1904	1-215-445-00	METAL	10K	1% 1/4W
R1822	1-215-445-00	METAL	10K	1%	1/4W	R1905	1-215-445-00	METAL	10K	1% 1/4W
R1823	1-215-445-00	METAL	10K	1%	1/4W	R1906	1-215-429-00	METAL	2.2K	1% 1/4W
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	R1907	1-215-445-00	METAL	10K	1% 1/4W
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	R1908	1-215-445-00	METAL	10K	1% 1/4W
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	R1909	1-215-445-00	METAL	10K	1% 1/4W
R1827	1-215-445-00	METAL	10K	1%	1/4W	R1910	1-215-445-00	METAL	10K	1% 1/4W
R1828	1-215-445-00	METAL	10K	1%	1/4W	R1911	1-215-453-00	METAL	22K	1% 1/4W
R1829	1-249-434-11	CARBON	27K	5%	1/4W	R1916	1-215-423-00	METAL	1.2K	1% 1/4W
R1830	1-249-434-11	CARBON	27K	5%	1/4W	R1920	1-215-453-00	METAL	22K	1% 1/4W
R1831	1-249-405-11	CARBON	100	5%	1/4W	R1921	1-215-445-00	METAL	10K	1% 1/4W
R1832	1-215-471-00	METAL	120K	1%	1/4W	R1922	1-215-445-00	METAL	10K	1% 1/4W
R1833	1-215-471-00	METAL	120K	1%	1/4W	R1924	1-215-429-00	METAL	2.2K	1% 1/4W
R1834	1-215-471-00	METAL	120K	1%	1/4W	R1925	1-215-429-00	METAL	2.2K	1% 1/4W
R1835	1-215-437-00	METAL	4.7K	1%	1/4W	R1926	1-215-429-00	METAL	2.2K	1% 1/4W
R1836	1-215-437-00	METAL	4.7K	1%	1/4W	R1927	1-215-445-00	METAL	10K	1% 1/4W
R1837	1-215-421-00	METAL	1K	1%	1/4W	R1928	1-215-421-00	METAL	1K	1% 1/4W
R1838	1-249-431-11	CARBON	15K	5%	1/4W	R1929	1-215-445-00	METAL	10K	1% 1/4W
R1839	1-249-431-11	CARBON	15K	5%	1/4W	R1930	1-215-397-00	METAL	100	1% 1/4W
R1858	1-215-445-00	METAL	10K	1%	1/4W	R1931	1-215-397-00	METAL	100	1% 1/4W
R1859	1-215-445-00	METAL	10K	1%	1/4W	R1932	1-215-453-00	METAL	22K	1% 1/4W
R1860	1-215-397-00	METAL	100	1%	1/4W					

**D** **DS**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
R1933	1-215-453-00	METAL 22K 1%	1/4W	RV960	1-241-630-11	RES, ADJ, CARBON 10K			
R1934	1-215-429-00	METAL 2.2K 1%	1/4W	RV961	1-241-631-11	RES, ADJ, CARBON 22K			
R1937	1-215-445-00	METAL 10K 1%	1/4W	RV962	1-241-631-11	RES, ADJ, CARBON 22K			
<b>&lt;VARIABLE RESISTOR&gt;</b>									
RV901	1-241-631-11	RES, ADJ, CARBON 22K		RV963	1-241-631-11	RES, ADJ, CARBON 22K			
RV902	1-241-631-11	RES, ADJ, CARBON 22K		RV964	1-241-631-11	RES, ADJ, CARBON 22K			
RV903	1-241-631-11	RES, ADJ, CARBON 22K		RV965	1-241-631-11	RES, ADJ, CARBON 22K			
RV904	1-241-631-11	RES, ADJ, CARBON 22K		RV966	1-241-631-11	RES, ADJ, CARBON 22K			
RV905	1-241-631-11	RES, ADJ, CARBON 22K		RV967	1-241-631-11	RES, ADJ, CARBON 22K			
RV906	1-241-631-11	RES, ADJ, CARBON 22K		RV968	1-241-631-11	RES, ADJ, CARBON 22K			
RV907	1-241-631-11	RES, ADJ, CARBON 22K		RV969	1-241-631-11	RES, ADJ, CARBON 22K			
RV908	1-241-631-11	RES, ADJ, CARBON 22K		RV970	1-241-631-11	RES, ADJ, CARBON 22K			
RV909	1-241-631-11	RES, ADJ, CARBON 22K		RV971	1-241-631-11	RES, ADJ, CARBON 22K			
RV910	1-241-631-11	RES, ADJ, CARBON 22K		RV972	1-241-631-11	RES, ADJ, CARBON 22K			
RV911	1-241-627-11	RES, ADJ, CARBON 1K		RV973	1-241-631-11	RES, ADJ, CARBON 22K			
RV912	1-241-631-11	RES, ADJ, CARBON 22K		RV974	1-241-631-11	RES, ADJ, CARBON 22K			
RV913	1-238-023-11	RES, ADJ, CARBON 470K		RV975	1-241-631-11	RES, ADJ, CARBON 22K			
RV914	1-241-630-11	RES, ADJ, CARBON 10K		RV976	1-241-631-11	RES, ADJ, CARBON 22K			
RV915	1-241-630-11	RES, ADJ, CARBON 10K		RV977	1-241-631-11	RES, ADJ, CARBON 22K			
RV916	1-241-631-11	RES, ADJ, CARBON 22K		RV978	1-241-631-11	RES, ADJ, CARBON 22K			
RV917	1-241-631-11	RES, ADJ, CARBON 22K		RV979	1-241-631-11	RES, ADJ, CARBON 22K			
RV918	1-241-631-11	RES, ADJ, CARBON 22K		RV980	1-238-019-11	RES, ADJ, CARBON 47K			
RV919	1-241-631-11	RES, ADJ, CARBON 22K		RV981	1-241-631-11	RES, ADJ, CARBON 22K			
RV920	1-241-631-11	RES, ADJ, CARBON 22K		RV982	1-241-631-11	RES, ADJ, CARBON 22K			
RV921	1-241-631-11	RES, ADJ, CARBON 22K		*****					
RV922	1-241-631-11	RES, ADJ, CARBON 22K		*1-644-278-11 DS BOARD					
RV923	1-241-631-11	RES, ADJ, CARBON 22K		*****					
RV924	1-241-631-11	RES, ADJ, CARBON 22K		<CAPACITOR>					
RV925	1-241-631-11	RES, ADJ, CARBON 22K		C1745	1-126-101-11	ELECT	100MF	20%	16V
RV926	1-241-631-11	RES, ADJ, CARBON 22K		C1746	1-126-101-11	ELECT	100MF	20%	16V
RV927	1-241-631-11	RES, ADJ, CARBON 22K		C1747	1-126-101-11	ELECT	100MF	20%	16V
RV928	1-241-630-11	RES, ADJ, CARBON 10K		C1748	1-126-101-11	ELECT	100MF	20%	16V
RV929	1-241-631-11	RES, ADJ, CARBON 22K		C1750	1-124-916-11	ELECT	22MF	20%	25V
RV930	1-241-630-11	RES, ADJ, CARBON 10K		C1751	1-126-101-11	ELECT	100MF	20%	16V
RV931	1-241-631-11	RES, ADJ, CARBON 22K		C1752	1-124-916-11	ELECT	22MF	20%	25V
RV932	1-241-631-11	RES, ADJ, CARBON 22K		C1753	1-124-916-11	ELECT	22MF	20%	25V
RV933	1-241-631-11	RES, ADJ, CARBON 22K		C1851	1-102-074-00	CERAMIC	0.001MF	10%	50V
RV934	1-241-631-11	RES, ADJ, CARBON 22K		<CONNECTOR>					
RV935	1-241-631-11	RES, ADJ, CARBON 22K		DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P			
RV936	1-241-631-11	RES, ADJ, CARBON 22K		<IC>					
RV937	1-241-630-11	RES, ADJ, CARBON 10K		IC1711	8-759-111-69	IC UPC1037HA			
RV938	1-241-630-11	RES, ADJ, CARBON 10K		IC1712	8-759-602-19	IC M5220L			
RV939	1-241-630-11	RES, ADJ, CARBON 10K		IC1713	8-759-111-69	IC UPC1037HA			
RV940	1-241-631-11	RES, ADJ, CARBON 22K		<RESISTOR>					
RV941	1-241-631-11	RES, ADJ, CARBON 22K		R1840	1-215-445-00	METAL	10K	1%	1/4W
RV942	1-241-631-11	RES, ADJ, CARBON 22K		R1841	1-215-433-00	METAL	3.3K	1%	1/4W
RV943	1-241-631-11	RES, ADJ, CARBON 22K		R1842	1-215-465-00	METAL	68K	1%	1/4W
RV944	1-241-631-11	RES, ADJ, CARBON 22K		R1843	1-215-421-00	METAL	1K	1%	1/4W
RV945	1-241-631-11	RES, ADJ, CARBON 22K		R1844	1-215-455-00	METAL	27K	1%	1/4W
RV946	1-241-631-11	RES, ADJ, CARBON 22K		R1845	1-215-455-00	METAL	27K	1%	1/4W
RV947	1-241-631-11	RES, ADJ, CARBON 22K		R1846	1-215-421-00	METAL	1K	1%	1/4W
RV948	1-241-631-11	RES, ADJ, CARBON 22K		R1850	1-215-461-00	METAL	47K	1%	1/4W
RV949	1-241-631-11	RES, ADJ, CARBON 22K		R1851	1-215-461-00	METAL	47K	1%	1/4W
RV950	1-241-631-11	RES, ADJ, CARBON 22K		R1852	1-215-429-00	METAL	2.2K	1%	1/4W
RV951	1-241-631-11	RES, ADJ, CARBON 22K		R1853	1-215-397-00	METAL	100	1%	1/4W
RV952	1-241-631-11	RES, ADJ, CARBON 22K							
RV953	1-241-631-11	RES, ADJ, CARBON 22K							
RV954	1-241-631-11	RES, ADJ, CARBON 22K							
RV955	1-241-631-11	RES, ADJ, CARBON 22K							
RV956	1-241-631-11	RES, ADJ, CARBON 22K							
RV957	1-241-631-11	RES, ADJ, CARBON 22K							
RV958	1-241-631-11	RES, ADJ, CARBON 22K							
RV959	1-241-631-11	RES, ADJ, CARBON 22K							

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

DS H1 H2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1854	1-215-429-00	METAL	2.2K 1% 1/4W				
R1855	1-215-397-00	METAL	100 1% 1/4W				
R1940	1-215-445-00	METAL	10K 1% 1/4W				
R1941	1-215-433-00	METAL	3.3K 1% 1/4W				
R1942	1-215-421-00	METAL	1K 1% 1/4W				
R1943	1-215-465-00	METAL	68K 1% 1/4W				
R1944	1-215-421-00	METAL	1K 1% 1/4W				
R1945	1-215-455-00	METAL	27K 1% 1/4W				
R1946	1-215-455-00	METAL	27K 1% 1/4W				
<CAPACITOR>							
RV983	1-241-630-11	RES, ADJ, CARBON	10K	D1651	8-719-908-03	DIODE GP08D	
RV984	1-241-630-11	RES, ADJ, CARBON	10K	D1652	8-719-908-03	DIODE GP08D	
<DIODE>							
*1-643-591-11	H1 BOARD		*****	D1653	8-719-108-12	DIODE RD9.1E-W	
				D1654	8-719-108-12	DIODE RD9.1E-W	
4-033-777-01	HOLDER, LED			D1655	8-719-108-12	DIODE RD9.1E-W	
*4-374-987-01	GUIDE, LIGHT						
4-381-686-01	BRACKET (B), LIGHT GUIDE						
<CONNECTOR>							
C1601	1-124-907-11	ELECT	10MF	20%	50V	H22 *1-564-519-41	PLUG, CONNECTOR 4P
C1602	1-124-907-11	ELECT	10MF	20%	50V	H25 *1-564-517-41	PLUG, CONNECTOR 2P
C1603	1-124-907-11	ELECT	10MF	20%	50V	H26 *1-564-519-11	PLUG, CONNECTOR 4P
C1604	1-124-261-00	ELECT	10MF	20%	50V	H28 *1-564-518-11	PLUG, CONNECTOR 3P
						H211 *1-564-517-11	PLUG, CONNECTOR 2P
						H216 *1-564-525-11	PLUG, CONNECTOR 10P
						H225 *1-564-518-11	PLUG, CONNECTOR 3P
<JACK>							
J1651	1-695-817-11	JACK BLOCK, PIN	3P				
<TRANSISTOR>							
Q1651	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1652	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1653	8-729-119-78	TRANSISTOR	2SC2785-HFE				
<RESISTOR>							
R1651	1-249-419-11	CARBON				1.5K 5%	1/4W
R1652	1-249-421-11	CARBON				2.2K 5%	1/4W
R1653	1-249-425-11	CARBON				4.7K 5%	1/4W
R1654	1-249-430-11	CARBON				12K 5%	1/4W
R1655	1-249-417-11	CARBON				1K 5%	1/4W
R1656	1-249-417-11	CARBON				1K 5%	1/4W
R1657	1-249-436-11	CARBON				39K 5%	1/4W
R1658	1-249-437-11	CARBON				47K 5%	1/4W
R1659	1-249-437-11	CARBON				47K 5%	1/4W
<RELAY>							
RY1651	1-515-586-11	RELAY	(DS-2)				
RY1652	1-515-586-11	RELAY	(DS-2)				
<SWITCH>							
S1651	1-554-303-21	SWITCH, TACTIL					
S1652	1-554-303-21	SWITCH, TACTIL					
S1653	1-554-303-21	SWITCH, TACTIL					
S1654	1-554-303-21	SWITCH, TACTIL					
S1655	1-554-303-21	SWITCH, TACTIL					
S1656	1-554-303-21	SWITCH, TACTIL					
S1657	1-554-303-21	SWITCH, TACTIL					
S1658	1-554-303-21	SWITCH, TACTIL					
S1659	1-554-303-21	SWITCH, TACTIL					
<SWITCH>							
S1660	1-571-731-21	SWITCH, TACTIL (POWER)					

**H2 ZR ZG ZB N**

REF. NO. PART NO. DESCRIPTION

S1655 1-554-303-21 SWITCH, TACTIL

\*A-1390-340-A ZR BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1901 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1902 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1901 1-202-818-00 SOLID 1K 20% 1/2W  
R1902 1-202-818-00 SOLID 1K 20% 1/2W  
R1903 1-249-414-11 CARBON 560 5% 1/4W  
R1904 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZR1 \*1-564-522-11 PLUG, CONNECTOR 7P  
ZR2 \*1-564-518-11 PLUG, CONNECTOR 3P  
ZR18 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*A-1390-346-A ZG BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1911 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1912 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1911 1-202-818-00 SOLID 1K 20% 1/2W  
R1912 1-202-818-00 SOLID 1K 20% 1/2W  
R1913 1-249-414-11 CARBON 560 5% 1/4W  
R1914 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZG2 \*1-564-523-11 PLUG, CONNECTOR 8P  
ZG19 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*A-1390-347-A ZB BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1921 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1922 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1921 1-202-818-00 SOLID 1K 20% 1/2W  
R1922 1-202-818-00 SOLID 1K 20% 1/2W  
R1923 1-249-414-11 CARBON 560 5% 1/4W  
R1924 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZB3 \*1-564-524-11 PLUG, CONNECTOR 9P

REMARK

REF. NO. PART NO. DESCRIPTION

ZB20 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*A-1390-351-A N BOARD, COMPLETE  
\*\*\*\*\*

4-039-042-01 SPACER, INSULATING  
4-382-854-11 SCREW (M3X10), P, SW (+)  
4-383-023-01 SPACER, MICA

<CAPACITOR>

C801 1-125-489-00 ELECT(BLOCK) 560MF 20% 200V

C802 1-123-024-21 ELECT 33MF 20% 160V

C803 1-136-729-11 FILM 1.5MF 5% 400V

C804 1-106-383-00 MYLAR 0.047MF 200V

C805 1-102-030-00 CERAMIC 330PF 10% 500V

C806 1-130-495-00 MYLAR 0.1MF 5% 50V

C807 1-123-875-11 ELECT 10MF 20% 50V

C808 1-126-183-11 ELECT 1000MF 20% 16V

C809 1-124-903-11 ELECT 1MF 20% 50V

C810 1-124-903-11 ELECT 1MF 20% 50V

C811 1-124-902-00 ELECT 0.47MF 20% 50V

C812 1-102-973-00 CERAMIC 100PF 5% 50V

C813 1-102-244-00 CERAMIC 220PF 10% 500V

C814 1-106-391-12 MYLAR 0.1MF 10% 200V

C815 1-106-367-00 MYLAR 0.01MF 10% 200V

C816 1-124-907-11 ELECT 10MF 20% 50V

C817 1-124-119-00 ELECT 330MF 20% 16V

C818 1-102-824-00 CERAMIC 470PF 5% 50V

C819 1-124-907-11 ELECT 10MF 20% 50V

C820 1-124-907-11 ELECT 10MF 20% 50V

C821 1-124-907-11 ELECT 10MF 20% 50V

C822 1-124-034-51 ELECT 33MF 20% 16V

C823 1-124-907-11 ELECT 10MF 20% 50V

C824 1-124-034-51 ELECT 33MF 20% 16V

C825 1-124-034-51 ELECT 33MF 20% 16V

C826 1-124-907-11 ELECT 10MF 20% 50V

C827 1-124-907-11 ELECT 10MF 20% 50V

C828 1-124-907-11 ELECT 10MF 20% 50V

C829 1-124-034-51 ELECT 33MF 20% 16V

C830 1-124-907-11 ELECT 10MF 20% 50V

C831 1-106-220-00 MYLAR 0.1MF 10% 100V

C832 1-124-907-11 ELECT 10MF 20% 50V

C833 1-124-916-11 ELECT 22MF 20% 50V

C834 1-102-121-00 CERAMIC 0.0022MF 10% 50V

C835 1-124-927-11 ELECT 4.7MF 20% 50V

C836 1-130-475-00 MYLAR 0.0022MF 5% 50V

C837 1-136-169-00 FILM 0.22MF 5% 50V

C838 1-130-475-00 MYLAR 0.0022MF 5% 50V

C839 1-102-106-00 CERAMIC 100PF 10% 50V

C840 A 1-136-807-11 FILM 0.018MF 3% 1.6KV

C841 1-136-729-11 FILM 1.5MF 5% 400V

C842 1-130-471-00 MYLAR 0.001MF 5% 50V

C844 1-106-391-12 MYLAR 0.1MF 10% 200V

C850 1-136-169-00 FILM 0.22MF 5% 50V

C851 1-124-907-11 ELECT 10MF 20% 50V

C852 1-124-907-11 ELECT 10MF 20% 50V

C853 1-106-220-00 MYLAR 0.1MF 10% 100V

C854 1-126-329-11 ELECT 470MF 20% 50V

C855 1-124-514-11 ELECT 100MF 20% 50V

C856 1-162-114-00 CERAMIC 0.0047MF 20% 2KV

C858 1-124-119-00 ELECT 330MF 20% 16V

C888 1-124-903-11 ELECT 1MF 20% 50V

Les composants identifiés par une trame et une marque **Δ** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **Δ** are critical for safety.  
Replace only with part number specified.

N

The components identified by shading and mark are critical for safety.  
Replace only with part number specified.

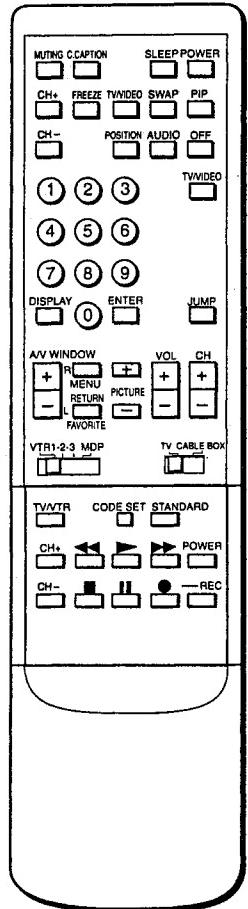
Les composants identifiés par une trame et une marque sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;DIODE&gt;</b>											
D801	8-719-928-08	DIODE ERD28-08S		Q801	8-729-201-61	TRANSISTOR 2SC2555-1					
D802	8-719-300-80	DIODE RU-1C		Q802	8-729-119-80	TRANSISTOR 2SC2688-LK					
D803	8-719-109-85	DIODE RD5.1ES-B2		Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D804	8-719-911-19	DIODE ISS119		Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D805	8-719-911-19	DIODE ISS119		Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D806	8-719-109-85	DIODE RD5.1ES-B2		Q806	8-729-119-80	TRANSISTOR 2SC2688-LK					
D807	8-719-109-85	DIODE RD5.1ES-B2		Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D808	8-719-911-19	DIODE ISS119		Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D809	8-719-911-19	DIODE ISS119		Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D810	8-719-911-19	DIODE ISS119		Q811	8-729-805-07	TRANSISTOR 2SD1887-CA					
D811	8-719-109-85	DIODE RD5.1ES-B2		Q812	8-729-019-88	TRANSISTOR 2SC3675-CB					
D812	8-719-911-19	DIODE ISS119		Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D813	8-719-911-19	DIODE ISS119		Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D814	8-719-911-19	DIODE ISS119		Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D815	8-719-110-36	DIODE RD13ES-B2		Q853	8-729-820-98	TRANSISTOR 2SC4256CB					
D817	8-719-945-80	DIODE ERC06-15S		<b>&lt;RESISTOR&gt;</b>							
D818	8-719-911-19	DIODE ISS119		R801	1-216-378-11	METAL OXIDE	5.6	5%	2W	F	
D820	8-719-911-19	DIODE ISS119		R802	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
D850	8-719-109-71	DIODE RD3.9ES-B1		R803	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
<b>D851</b>	<b> 8-719-903-09</b>	<b>DIODE V30N</b>		R804	1-249-429-11	CARBON	10K	5%	1/4W		
D852	8-719-911-19	DIODE ISS119		R805	1-249-423-11	CARBON	3.3K	5%	1/4W		
<b>D853</b>	<b> 8-719-903-09</b>	<b>DIODE V30N</b>		R806	1-249-425-11	CARBON	4.7K	5%	1/4W		
D891	8-719-110-49	DIODE RD18ES-B2		R807	1-249-441-11	CARBON	100K	5%	1/4W		
D892	8-719-110-49	DIODE RD18ES-B2		R808	1-249-417-11	CARBON	1K	5%	1/4W		
<b>&lt;IC&gt;</b>											
IC801	8-759-231-58	IC TA7812S		R809	1-249-417-11	CARBON	1K	5%	1/4W		
IC802	8-759-103-93	IC UPC393C		R810	1-249-441-11	CARBON	100K	5%	1/4W		
IC803	8-759-990-82	IC TL082CP		R811	1-249-421-11	CARBON	2.2K	5%	1/4W		
IC804	8-759-103-93	IC UPC393C		R812	1-249-420-11	CARBON	1.8K	5%	1/4W		
IC805	8-759-100-75	IC UPC1394C		R813	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F	
<b>&lt;COIL&gt;</b>											
L801	1-459-862-11	COIL, CHOKE 90UH		R814	1-249-409-11	CARBON	220	5%	1/4W		
L802	1-424-603-11	COIL, CHOKE 1.05MMH		R815	1-249-415-11	CARBON	680	5%	1/4W		
L803	1-459-313-00	COIL WITH CORE (HWC)		R816	1-214-777-00	METAL	100K	1%	1/4W		
L804	1-410-482-31	INDUCTOR 100UH		R817	1-215-471-00	METAL	120K	1%	1/4W		
<b>D805</b>	<b> 1-424-603-11</b>	<b>COIL, CHOKE 1.05MMH</b>		R818	1-215-471-00	METAL	120K	1%	1/4W		
<b>&lt;CONNECTOR&gt;</b>											
N1	1-506-348-99	PIN, CONNECTOR 3P		R819	1-215-450-00	METAL	16K	1%	1/4W		
N2	*1-564-508-11	PLUG, CONNECTOR 5P		R820	1-215-451-00	METAL	18K	1%	1/4W		
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R821	1-249-423-11	CARBON	3.3K	5%	1/4W		
N4	*1-564-507-11	PLUG, CONNECTOR 4P		R822	1-249-433-11	CARBON	22K	5%	1/4W		
N5	*1-564-508-11	PLUG, CONNECTOR 5P		R823	1-249-429-11	CARBON	10K	5%	1/4W		
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R824	1-215-469-00	METAL	100K	1%	1/4W		
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R825	1-215-453-00	METAL	22K	1%	1/4W		
N8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R826	1-214-962-00	METAL	820K	1%	1/4W		
N9	1-506-348-99	PIN, CONNECTOR 3P		R827	1-214-764-00	METAL	30K	1%	1/4W		
N10	*1-564-511-41	PLUG, CONNECTOR 8P		R828	1-215-455-00	METAL	27K	1%	1/4W		
N20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P		R829	1-215-455-00	METAL	27K	1%	1/4W		
N21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		R830	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R831	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N851	*1-506-371-00	PIN, CONNECTOR 2P		R832	1-249-417-11	CARBON	1K	5%	1/4W		
N853	*1-506-371-00	PIN, CONNECTOR 2P		R833	1-249-419-11	CARBON	1.5K	5%	1/4W		
NL801	1-519-108-99	LAMP, NEON		R834	1-249-419-11	CARBON	1.5K	5%	1/4W		
				R835	1-215-429-00	METAL	2.2K	1%	1/4W		
<b>&lt;NEON LAMP&gt;</b>											
				R836	1-215-435-00	METAL	3.9K	1%	1/4W		
				R837	1-249-433-11	CARBON	22K	5%	1/4W		
				R838	1-249-435-11	CARBON	33K	5%	1/4W		
				R839	1-249-438-11	CARBON	56K	5%	1/4W		
				R840	1-249-434-11	CARBON	27K	5%	1/4W		
				R841	1-249-429-11	CARBON	10K	5%	1/4W		
				R842	1-249-435-11	CARBON	33K	5%	1/4W		
				R843	1-249-423-11	CARBON	3.3K	5%	1/4W		

# Selecting a Picture and Sound Mode

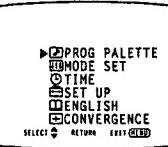
This projection TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.



(with video control  
cover open)

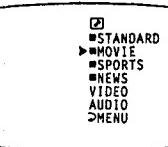
1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



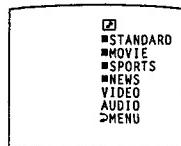
2 Press RETURN.  
The program palette menu appears.



3 Press A/V WINDOW +/- until the cursor points to "MOVIE."



4 Press RETURN.  
The "MOVIE" display turns green, indicating that MOVIE mode is selected.



To select a different mode  
Repeat steps 3 – 4.

## Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.



To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to ". ▶ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

## When you select STANDARD mode

You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Projection TV," pp. 44 – 52) are cancelled and the original factory settings are restored.

## When you select MOVIE mode

You receive a finely detailed picture, and a theatrical audio effect.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

## When you select SPORTS mode

You receive a vivid, bright picture, and sound with a sports stadium effect.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

## When you select NEWS mode

Picture noise is reduced, and you receive clear voice reproduction.  
To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

**N S**

The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R844	1-249-433-11	CARBON	22K 5% 1/4W				
R845	1-249-435-11	CARBON	33K 5% 1/4W				
R846	1-249-429-11	CARBON	10K 5% 1/4W				
R847	1-214-761-00	METAL	22K 1% 1/4W				
R848	1-215-429-00	METAL	2.2K 1% 1/4W				
R849	1-215-421-00	METAL	1K 1% 1/4W				
R850	1-215-429-00	METAL	2.2K 1% 1/4W				
R851	1-215-404-00	METAL	200 1% 1/4W				
<b>█ R852 ▲</b>	1-215-469-00	METAL	100K 1% 1/4W		<b>*A-1394-421-A</b>	S BOARD, COMPLETE	
R853	1-215-469-00	METAL	100K 1% 1/4W			*****	
R854	1-249-430-11	CARBON	12K 5% 1/4W				
R855	1-215-469-00	METAL	100K 1% 1/4W				
R856	1-249-430-11	CARBON	12K 5% 1/4W				
R857	1-249-433-11	CARBON	22K 5% 1/4W				
R858	1-249-413-11	CARBON	470 5% 1/4W				
R859	1-249-435-11	CARBON	33K 5% 1/4W				
R860	1-249-441-11	CARBON	100K 5% 1/4W				
R861	1-249-421-11	CARBON	2.2K 5% 1/4W				
R862	1-249-434-11	CARBON	27K 5% 1/4W				
R863	1-249-431-11	CARBON	15K 5% 1/4W				
R864	1-249-423-11	CARBON	3.3K 5% 1/4W				
R865	1-249-440-11	CARBON	82K 5% 1/4W				
R866	1-249-436-11	CARBON	39K 5% 1/4W				
R867	1-249-437-11	CARBON	47K 5% 1/4W				
R868	1-249-428-11	CARBON	8.2K 5% 1/4W				
R869	1-249-429-11	CARBON	10K 5% 1/4W				
R870	1-249-417-11	CARBON	1K 5% 1/4W				
R871	1-249-440-11	CARBON	82K 5% 1/4W				
R872	1-249-423-11	CARBON	3.3K 5% 1/4W				
R873	1-249-441-11	CARBON	100K 5% 1/4W				
R874	1-249-435-11	CARBON	33K 5% 1/4W				
R875	1-249-421-11	CARBON	2.2K 5% 1/4W				
R876	1-215-426-00	METAL	1.6K 1% 1/4W				
R877	1-249-435-11	CARBON	33K 5% 1/4W				
R878	1-249-441-11	CARBON	100K 5% 1/4W				
R879	1-216-489-11	METAL OXIDE	27K 5% 3W F				
R880	1-249-429-11	CARBON	10K 5% 1/4W				
R881	1-214-761-00	METAL	22K 1% 1/4W				
R882	1-249-433-11	CARBON	22K 5% 1/4W				
R883	1-249-417-11	CARBON	1K 5% 1/4W				
R884	1-215-894-11	METAL OXIDE	2.2K 5% 2W F				
R885	1-249-438-11	CARBON	56K 5% 1/4W				
R886	1-249-414-11	CARBON	560 5% 1/4W				
R887	1-215-397-00	METAL	100 1% 1/4W				
R888	1-249-410-11	CARBON	270 5% 1/4W				
R889	1-249-417-11	CARBON	1K 5% 1/4W				
R890	1-249-417-11	CARBON	1K 5% 1/4W				
R891	1-216-489-11	METAL OXIDE	27K 5% 3W F				
R892	1-249-417-11	CARBON	1K 5% 1/4W F				
R893	1-215-453-00	METAL	22K 1% 1/4W				
R894	1-249-401-11	CARBON	47 5% 1/4W				
R895	1-202-731-00	SOLID	10M 20% 1/2W				
R896	1-260-111-11	CARBON	10K 5% 1/2W				
R897	1-247-881-00	CARBON	120K 5% 1/4W				
R898	1-202-730-00	SOLID	8.2M 20% 1/2W				
R899	1-249-429-11	CARBON	10K 5% 1/4W				
R903	1-247-735-11	SOLID	47 20% 1/2W				
R904	1-215-928-11	METAL OXIDE	68K 5% 3W F				
R905	1-215-911-11	METAL OXIDE	100 5% 3W F				
<b>&lt;SPARK GAP&gt;</b>							
SG801	1-519-422-11	GAP, SPARK					
<b>&lt;TRANSFORMER&gt;</b>							
T801	▲ 1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE					
T802	1-437-090-00	HDT					
T803	▲ 1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)					
*****							
<b>*A-1394-421-A</b>							
S BOARD, COMPLETE							
*****							
<b>&lt;CAPACITOR&gt;</b>							
C3403	1-164-161-11	CERAMIC CHIP 0.0022MF					
C3408	1-164-232-11	CERAMIC CHIP 0.01MF					
C3409	1-124-477-11	ELECT 47MF					
C3411	1-124-034-51	ELECT 33MF					
C3442	1-164-161-11	CERAMIC CHIP 0.0022MF					
C3446	1-163-129-00	CERAMIC CHIP 330PF					
C3447	1-163-117-00	CERAMIC CHIP 100PF					
C3448	1-163-023-00	CERAMIC CHIP 0.015MF					
C3449	1-164-182-11	CERAMIC CHIP 0.0033MF					
C3450	1-163-109-00	CERAMIC CHIP 47PF					
C3451	1-164-004-11	CERAMIC CHIP 0.1MF					
C3452	1-163-989-11	CERAMIC CHIP 0.033MF					
C3453	1-124-477-11	ELECT 47MF					
C3454	1-126-162-11	ELECT 3.3MF					
C3455	1-126-163-11	ELECT 4.7MF					
C3456	1-163-129-00	CERAMIC CHIP 330PF					
C3457	1-163-117-00	CERAMIC CHIP 100PF					
C3459	1-124-477-11	ELECT 47MF					
C3460	1-163-099-00	CERAMIC CHIP 18PF					
C3461	1-163-099-00	CERAMIC CHIP 18PF					
C3507	1-164-232-11	CERAMIC CHIP 0.01MF					
C3508	1-164-005-11	CERAMIC CHIP 0.47MF					
C3509	1-163-139-00	CERAMIC CHIP 820PF					
C3515	1-163-121-00	CERAMIC CHIP 150PF					
C3540	1-126-157-11	ELECT 10MF					
<b>&lt;DIODE&gt;</b>							
D3444	8-719-404-46	DIODE MA110					
<b>&lt;IC&gt;</b>							
IC3401	8-759-403-44	IC MN1280-S					
IC3402	8-759-070-42	IC M37201M6-A18FP					
IC3441	8-759-982-21	IC RC78L05A					
IC3442	8-759-084-12	IC LA7945					
IC3443	8-759-158-03	IC LC7458A-02					
<b>&lt;COIL&gt;</b>							
IC3444	8-759-403-44	IC MN1280-S					
<b>&lt;TRANSISTOR&gt;</b>							
Q3441	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q3444	8-729-903-10	TRANSISTOR FMW1					

S U

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
<b>&lt;RESISTOR&gt;</b>								
R3401	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3402	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*A-1394-422-A U BOARD, COMPLETE			
R3403	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3404	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3405	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3406	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	*****			
R3407	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3408	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	*****			
R3409	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3441	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3442	1-216-041-00	METAL GLAZE	470 5%	1/10W	*****			
R3443	1-216-041-00	METAL GLAZE	470 5%	1/10W	*****			
R3444	1-216-077-00	METAL GLAZE	15K 5%	1/10W	*****			
R3445	1-216-689-11	METAL GLAZE	39K 5%	1/10W	*****			
R3446	1-216-085-00	METAL GLAZE	33K 5%	1/10W	*****			
R3449	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3450	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3451	1-216-093-00	METAL GLAZE	68K 5%	1/10W	*****			
R3452	1-216-079-00	METAL GLAZE	18K 5%	1/10W	*****			
R3453	1-216-679-11	METAL CHIP	15K 0.50%	1/10W	*****			
R3454	1-216-037-00	METAL GLAZE	330 5%	1/10W	*****			
R3455	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3456	1-216-077-00	METAL GLAZE	15K 5%	1/10W	*****			
R3463	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3464	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3465	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3472	1-216-091-00	METAL GLAZE	56K 5%	1/10W	*****			
R3473	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3474	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3504	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3509	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3511	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3512	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3513	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3514	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3519	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3520	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3521	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3525	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3526	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3528	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3529	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3530	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3531	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3532	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3535	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3537	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3540	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
<b>&lt;CONNECTOR&gt;</b>								
S42	*1-568-378-21	PIN, CONNECTOR 3P			D1005	8-719-110-36	DIODE RD13ES-B2	
S43	*1-564-508-11	PLUG, CONNECTOR 5P			D1009	8-719-110-36	DIODE RD13ES-B2	
S45	*1-564-511-71	PLUG, CONNECTOR 8P			D1010	8-719-110-36	DIODE RD13ES-B2	
S46	*1-564-506-11	PLUG, CONNECTOR 3P			D1011	8-719-110-36	DIODE RD13ES-B2	
S47	*1-564-506-11	PLUG, CONNECTOR 3P			D1012	8-719-110-36	DIODE RD13ES-B2	
<b>&lt;CRYSTAL&gt;</b>								
X3401	1-577-082-11	VIBRATOR, CERAMIC			D1013	8-719-110-36	DIODE RD13ES-B2	
X3441	1-577-364-11	VIBRATOR, CERAMIC			D1017	8-719-110-36	DIODE RD13ES-B2	
					D1018	8-719-110-36	DIODE RD13ES-B2	
					D1019	8-719-110-36	DIODE RD13ES-B2	
					D1020	8-719-109-66	DIODE RD3.3ES-B2	
<b>&lt;BLOCK&gt;</b>								
CM1002 1-466-162-31 BLOCK, COM FILTER (CFB-4)								
<b>&lt;DIODE&gt;</b>								

U UT

UT

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by  $\blacksquare$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1168	1-126-301-11	ELECT	1MF
C1199	1-102-129-00	CERAMIC	0.01MF
C1200	1-102-129-00	CERAMIC	0.01MF

## &lt;DIODE&gt;

D1152	8-719-110-36	DIODE	RD13ES-B2
D1158	8-719-110-36	DIODE	RD13ES-B2
D1159	8-719-110-36	DIODE	RD13ES-B2
D1160	8-719-110-36	DIODE	RD13ES-B2
D1163	8-719-110-36	DIODE	RD13ES-B2
D1164	8-719-110-36	DIODE	RD13ES-B2
D1165	8-719-110-36	DIODE	RD13ES-B2
D1166	8-719-110-36	DIODE	RD13ES-B2
D1167	8-719-110-36	DIODE	RD13ES-B2
D1168	8-719-110-36	DIODE	RD13ES-B2
D1169	8-719-110-36	DIODE	RD13ES-B2
D1170	8-719-110-36	DIODE	RD13ES-B2

## &lt;JACK&gt;

J1001	1-537-187-11	TERMINAL, PUSH (4P)
J1003	1-573-970-11	BLOCK, (S) TERMINAL
J1004	1-695-049-11	BLOCK, (S) TERMINAL
J1005	1-695-054-11	JACK BLOCK, PIN
J1006	1-573-970-11	BLOCK, (S) TERMINAL
J1007	1-573-969-11	JACK BLOCK, PIN
J1008	1-573-969-11	JACK BLOCK, PIN

## &lt;RESISTOR&gt;

R1153	1-249-403-11	CARBON	68	5%	1/4W
R1164	1-247-895-00	CARBON	470K	5%	1/4W
R1165	1-247-895-00	CARBON	470K	5%	1/4W
R1166	1-247-895-00	CARBON	470K	5%	1/4W
R1167	1-247-895-00	CARBON	470K	5%	1/4W
R1168	1-247-895-00	CARBON	470K	5%	1/4W
R1169	1-249-403-11	CARBON	68	5%	1/4W
R1170	1-249-403-11	CARBON	68	5%	1/4W
R1171	1-247-895-00	CARBON	470K	5%	1/4W
R1172	1-247-895-00	CARBON	470K	5%	1/4W
R1173	1-247-804-11	CARBON	75	5%	1/4W
R1174	1-247-895-00	CARBON	470K	5%	1/4W
R1175	1-247-895-00	CARBON	470K	5%	1/4W
R1176	1-247-804-11	CARBON	75	5%	1/4W
R1177	1-247-895-00	CARBON	470K	5%	1/4W
R1178	1-247-895-00	CARBON	470K	5%	1/4W
R1179	1-247-895-00	CARBON	470K	5%	1/4W
R1180	1-247-804-11	CARBON	75	5%	1/4W
R1181	1-247-804-11	CARBON	75	5%	1/4W
R1182	1-247-895-00	CARBON	470K	5%	1/4W
R1183	1-247-895-00	CARBON	470K	5%	1/4W
R1184	1-247-895-00	CARBON	470K	5%	1/4W
R1185	1-247-895-00	CARBON	470K	5%	1/4W
R1186	1-247-895-00	CARBON	470K	5%	1/4W
R1188	1-247-804-11	CARBON	75	5%	1/4W
R1191	1-249-425-11	CARBON	4.7K	5%	1/4W
R1192	1-249-425-11	CARBON	4.7K	5%	1/4W
R1193	1-249-425-11	CARBON	4.7K	5%	1/4W
R1194	1-249-425-11	CARBON	4.7K	5%	1/4W
R1196	1-249-426-11	CARBON	5.6K	5%	1/4W

## &lt;SWITCH&gt;

S1150 1-572-198-11 SWITCH, KEYBOARD

## &lt;CONNECTOR&gt;

UT11	*1-564-519-11	PLUG, CONNECTOR 4P
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
UT35	*1-564-518-11	PLUG, CONNECTOR 3P

\*\*\*\*\*

MISCELLANEOUS  
\*\*\*\*\*

$\Delta$ 1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)
$\Delta$ 1-451-396-21	DEFLECTION YOKE (Y936PA)
$\Delta$ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)
$\Delta$ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE
1-544-768-11	SPEAKER (13CM) (COAXIAL)

*1-555-110-00	CABLE, PIN
1-561-306-00	JACK, PIN (F)
1-574-590-31	LEAD ASSY, HIGH-VOLTAGE
*1-696-002-12	CORD, POWER (WITH NOISE FILTER)
V902 $\Delta$ 8-736-631-05	PICTURE TUBE (SD-249 (G))

V903 $\Delta$ 8-736-632-05	PICTURE TUBE (SD-249 (B))
V901 $\Delta$ 8-736-633-05	PICTURE TUBE (SD-249 (R))

$\blacksquare$ R900 $\Delta$	METAL FILM	1/4W
$\blacksquare$ R901 $\Delta$	METAL FILM	1/4W
$\blacksquare$ R902 $\Delta$	METAL FILM	1/4W

\*\*\*\*\*

## ACCESSORIES AND PACKING MATERIALS

*3-704-356-01	SHEET (STANDARD), PROTECTION
3-756-987-21	MANUAL, INSTRUCTION
3-756-987-31	MANUAL, INSTRUCTION (KP-41EXR96(C))
3-756-987-41	MANUAL, INSTRUCTION (KP-41EXR96(U))
*4-030-895-01	JOINT

*4-036-102-01	CUSHION (UPPER) (ASSY)
*4-036-106-01	INDIVIDUAL CARTON
*4-036-107-01	TRAY
*4-036-108-01	CUSHION (LOWER) (ASSY)
*4-381-155-01	BAG, PROTECTION

## REMOTE COMMANDER

1-693-114-21	REMOTE COMMANDER (RM-Y112A)
9-902 719-01	COVER (FOR RM-Y112A)
9-998-214-01	COVER, BATTERY (FOR RM-Y112A)



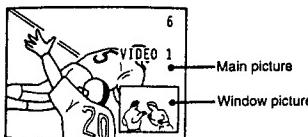
## Chapter 3: Using Advanced Features

### Watching Two Pictures at Once (PIP)

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function.

KP-41EXR96 is equipped with one-tuner PIP. To watch two TV channels simultaneously, you must first connect a VCR to the projection TV, which will enable you to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 15-19.)

Other models are equipped with two-tuner PIP, allowing you to watch two TV channels at once.



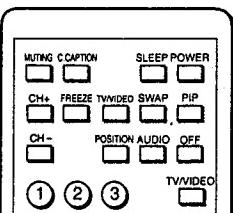
#### Picture-In-Picture special features

When watching the main picture and a window picture, you can:

- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

#### Displaying a window picture

Remote Commander



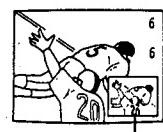
Press PIP to display a window picture



Input source mode or TV channel for the main picture



Input source mode or TV channel for the window picture



A window picture appears in the last mode you watched.  
Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

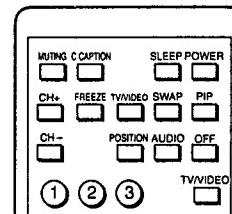
To turn PIP function off

Press OFF.

The window picture disappears.

#### Changing the window picture input mode

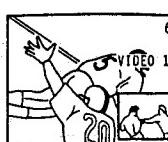
Remote Commander



1 Press PIP to display a window picture.



2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode.  
Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.



To change TV channels in the window picture  
Press CH +/- in the PIP control area.

#### Notes

- The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 62-63.)

#### To receive the window picture sound

Press AUDIO.

The display appears for a few seconds, indicating that the window picture sound is being received.

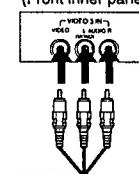
#### To restore the main picture sound

Press AUDIO again.

#### Displaying CATV Input as a window picture

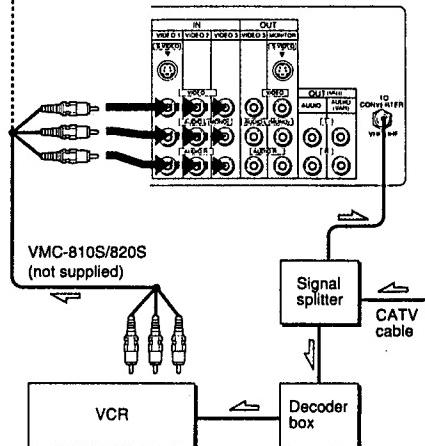
To use Picture-In-Picture with pay cable TV input, make the connections to your cable converter box as shown below.

(Front inner panel)



Signal flow

(Rear of projection TV)



After making the above connections, turn the cable connection on by following the steps on pp. 26-27; then continue with the steps below.

**1-2** Follow steps 1-2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

**3** Put your VCR on an inactive channel (channel 3 or 4).

**4** Change pay cable TV channels with the decoder box.

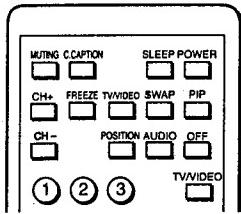
To control your cable converter box with the supplied Remote Commander  
See p. 70.

## Watching Two Pictures at Once (PIP)

### Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

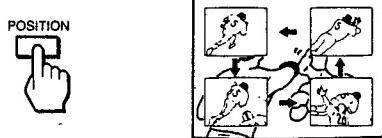
#### Remote Commander



1 Press PIP to display a window picture.



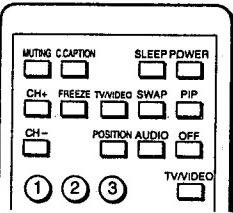
2 Press POSITION.  
Each time you press POSITION, the window picture moves as illustrated.



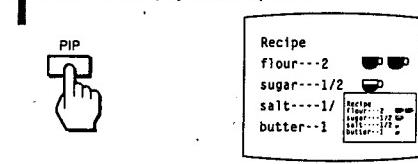
### Displaying a still picture

Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on.

#### Remote Commander



1 Press PIP to display a window picture.



2 Press FREEZE.  
The window picture image remains still on the screen.

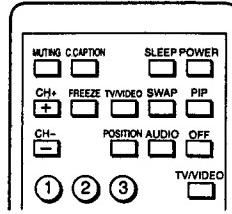


To restore the normal picture  
Press FREEZE again.

### Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

#### Remote Commander



1 Press PIP to display a window picture.



2 Press SWAP.  
Each time you press SWAP, the images from the main and window pictures switch places.



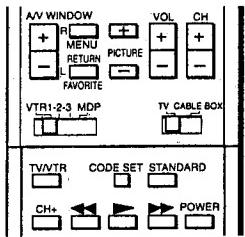
# Adjusting the Projection TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 38 – 39).

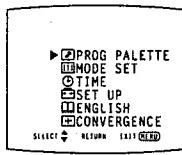
## Adjusting the picture

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

Remote Commander (with video control cover open)



**1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



**2** Press RETURN.  
The program palette menu appears.



**3** Press A/V WINDOW +/- until the cursor points to "VIDEO."

**4** Press RETURN.  
The VIDEO screen appears.



**5** Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

**6** Press RETURN.  
The adjustment screen appears.



**7** Press A/V WINDOW +/- to make the adjustment.

Picture quality	Press A/V WINDOW –	Press A/V WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

**8** Press RETURN.  
The adjustment is complete, and the VIDEO screen automatically reappears.



To adjust other items  
Repeat steps 5 – 8.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and press RETURN;  
or, press STANDARD on the Remote Commander.  
*All the items, including TRINITONE (p. 46) and NR (p. 47) return to their original factory settings.*

To adjust picture contrast  
You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.



Press + to increase picture contrast with vivid color.  
Press – to decrease picture contrast with soft color.  
*The picture adjustment screen appears.*

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

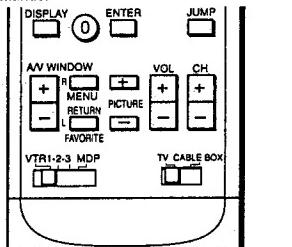
To return to the normal screen  
Press MENU.

## Adjusting the Projection TV

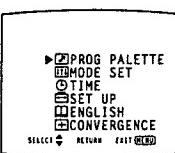
### Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

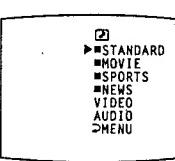
#### Remote Commander



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



- 2** Press RETURN.  
The program palette menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4** Press RETURN.  
The VIDEO screen appears.



- 5** Press A/V WINDOW +/- until the cursor points to "TRINITONE."

- 6** Press RETURN.  
The mode display turns red.

- 7** Press A/V WINDOW +/- to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).  
Select "LOW" to make the picture warm (reddish).

- 8** Press RETURN.  
The setting is complete.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

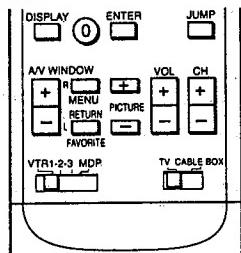
**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU.

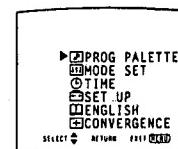
### Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

#### Remote Commander



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



- 2** Press RETURN.  
The program palette menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4** Press RETURN.  
The VIDEO screen appears.

- 5** Press A/V WINDOW +/- until the cursor points to "NR."



- 6** Press RETURN.  
The mode display turns red.

- 7** Press A/V WINDOW +/- to select "ON" or "OFF."  
Select "ON" to reduce picture noise..  
Select "OFF" to restore the normal picture.

- 8** Press RETURN.  
The setting is complete.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU.

## Adjusting the Projection TV

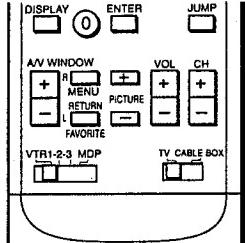
### Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

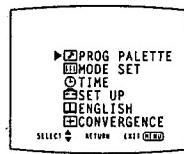
#### Note

If the projection TV is in TV, VIDEO 2 or VIDEO 3 mode, the "S-VIDEO" display is shaded and cannot be selected. Press TV/VIDEO on the projection TV or on the Remote Commander to change to VIDEO 1 mode.

#### Remote Commander

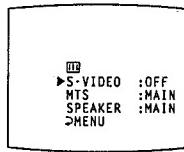


- 1** Press MENU.  
The main menu appears.



- 2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3** Press RETURN.  
The mode set menu appears, with the cursor pointing to "S-VIDEO."



- 4** Press RETURN.  
The mode display turns red.

- 5** Press A/V WINDOW +/- to select "ON" or "OFF."

- 6** Press RETURN.  
The setting is complete.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

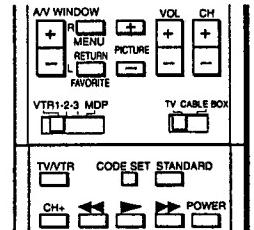
To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

### Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

Remote Commander (with video control cover open)



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



- 2** Press RETURN.  
The program palette menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "AUDIO."

- 4** Press RETURN.  
The AUDIO screen appears.



- 5** Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

- 6** Press RETURN.  
The adjustment screen appears.



- 7** Press A/V WINDOW +/- to make the adjustment.

Sound quality	Press A/V WINDOW -	Press A/V WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

- 8** Press RETURN.  
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items  
Repeat steps 5 – 9.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.

All the items, including SRS mode (p. 50) return to their original factory settings.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

## Adjusting the Projection TV

### Selecting an SRS (Sound Retrieval System) mode

For lifelike sound reproduction, follow the instructions below to select the SRS mode you prefer.

In SRS AUTO mode, SRS functions in both monaural and stereo modes.

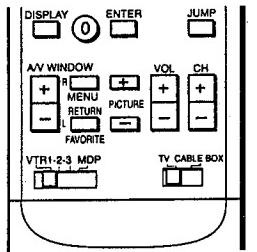
Monaural sound programs will have a 'simulated stereo' effect.

In SRS STEREO mode, SRS functions only when a stereo program is received.

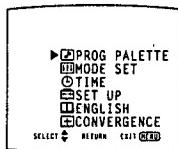
The **STEREO** lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

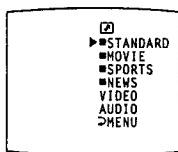
#### Remote Commander



**1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



**2** Press RETURN.  
The program palette menu appears.



**3** Press A/V WINDOW +/- until the cursor points to "AUDIO."

**4** Press RETURN.  
The AUDIO screen appears.



**5** Press A/V WINDOW +/- until the cursor points to the SRS mode you want.

**6** Press RETURN.  
The mode is selected.

To change the SRS mode  
Repeat steps 5 – 6.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "DMENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

### Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

Select MAIN mode to listen to stereo sound.  
The **STEREO** lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

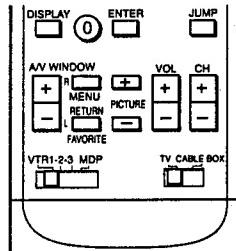
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

#### Note

If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.

Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

#### Remote Commander

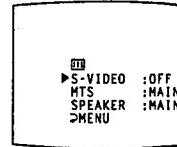


**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

**3** Press RETURN.  
The mode set menu appears.



**4** Press A/V WINDOW +/- until the cursor points to "MTS."

**5** Press RETURN.  
The mode display turns red.

**6** Press A/V WINDOW +/- to select the mode you want.  
Each time you press A/V WINDOW +/-, "MAIN," "SAP" and "MONO" appear in sequence.

**7** Press RETURN.  
The mode is selected.

#### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "DMENU."  
Then press RETURN.

#### To return to the main menu

Repeat the above, until you reach the main menu.

#### To return to the normal screen

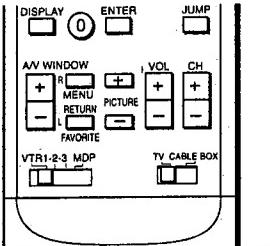
Press MENU.

## Adjusting the Projection TV

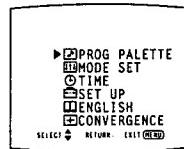
### Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

#### Remote Commander

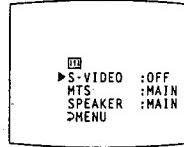


- 1** Press MENU.  
The main menu appears.



- 2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3** Press RETURN.  
The mode set menu appears.



- 4** Press A/V WINDOW +/- until the cursor points to "SPEAKER."

- 5** Press RETURN.  
The mode display turns red.

- 6** Press A/V WINDOW +/- to select "MAIN" or "CENTER."

- 7** Press RETURN.  
The setting is complete.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

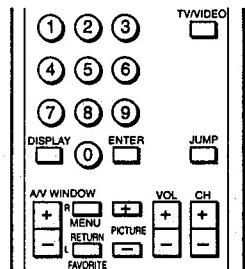
## Customizing the Screen Display

### Setting channel captions — CH CAPTION

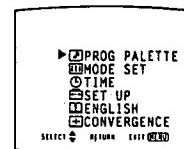
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

#### Remote Commander

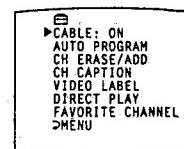


- 1** Press MENU.  
The main menu appears.



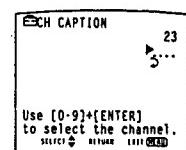
- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3** Press RETURN.  
The set up menu appears.

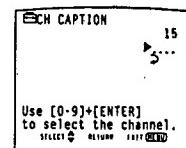


- 4** Press A/V WINDOW +/- until the cursor points to "CH CAPTION."

- 5** Press RETURN.  
The CH CAPTION screen appears.

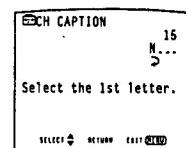


- 6** Press CH +/-, or press 1, 5 and ENTER to set channel "15."



- 7** Press RETURN.  
The first caption space turns red.

- 8** Press A/V WINDOW +/- to select "N."  
Each time you press A/V WINDOW +/-, "0" – "9," "A" – "Z," "&," "/", "-", and "\_" (blank space) appear in sequence.

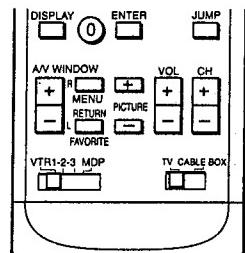


- 9** Press RETURN.  
The second caption space turns red.

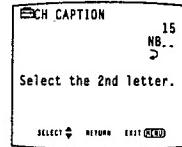
## Customizing the Screen Display

### Setting channel captions – CH CAPTION (Cont'd. from prev. page)

Remote Commander

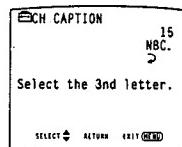


**10** Press A/V WINDOW +/- to select "B."



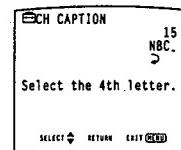
**11** Press RETURN.  
The third caption space turns red.

**12** Press A/V WINDOW +/- to select "C."



**13** Press RETURN.  
The fourth caption space turns red.

**14** Press A/V WINDOW +/- to select a blank space.



**15** Press RETURN.  
The setting is complete.  
When you select or display the channel number, the channel caption also appears.

To caption more channels

Repeat steps 6 – 15.

To erase unnecessary captions

Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.  
The caption for that channel is erased.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"► MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

Note

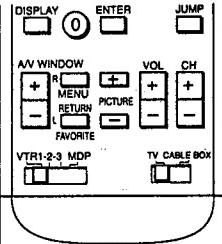
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

### Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."

Remote Commander

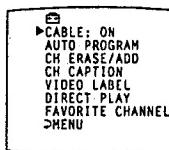


**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to  
"SET UP."

**3** Press RETURN.  
The set up menu appears.



**4** Press A/V WINDOW +/- until the cursor points to  
"VIDEO LABEL."

**5** Press RETURN.  
The VIDEO LABEL screen appears.



**6** Press A/V WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

**7** Press RETURN.  
The label display turns red.

**8** Press A/V WINDOW +/- to select "VHS."



Each time you press A/V WINDOW +/-, the label changes:

VIDEO 1  
VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO

VIDEO 2  
VIDEO 2 → BETA → 8mm → VHS → LD

VIDEO 3  
VIDEO 3 → BETA → 8mm → VHS → LD

**9** Press RETURN.  
The setting is complete.  
When you select or display the video mode, the video label appears.

To label other Input modes  
Repeat steps 6 – 9.

To change a label  
Same as above.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"► MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

# Using Timer-Activated Functions



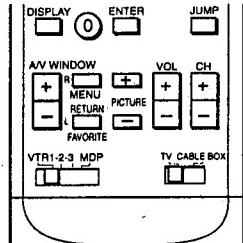
## Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

### When setting DAYLIGHT SAVING:

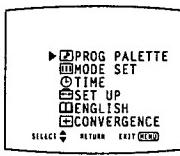
- After the first Sunday in April (spring daylight savings)  
Set to "YES" before setting the current time.  
Then, on the last Sunday in October (fall daylight savings), set to "NO."  
*All the time-related settings automatically move one hour back.*
- After the last Sunday in October (fall daylight savings)  
Set to "NO" before setting the current time.  
Then, on the first Sunday in April (spring daylight savings), set to "YES."  
*All the time-related settings automatically move one hour ahead.*

### Remote Commander



Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.  
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.  
The time menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

- 5 Press RETURN.  
The mode display turns red.

- 6 Press A/V WINDOW +/- to select "YES" or "NO."

- 7 Press RETURN.  
The setting is complete.

### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

### To return to the main menu

Repeat the above, until you reach the main menu.

### To return to the normal screen.

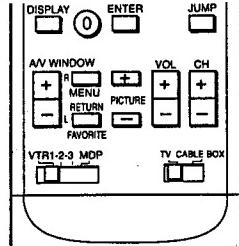
Press MENU.

## Setting the clock — CURRENT TIME SET

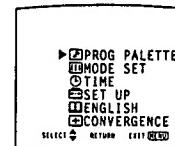
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER and CHANNEL BLOCK).

**Example:** Set the time to 3:15 PM, Monday.

### Remote Commander

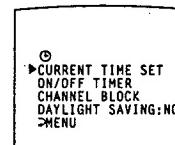


- 1 Press MENU.  
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.  
The time menu appears, and the cursor points to "CURRENT TIME SET."



- 4 Press RETURN again.  
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.



If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

### To set daylight saving

- a Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

- b Press RETURN.  
The time menu appears, and the cursor points to "DAYLIGHT SAVING."

- c Press RETURN.

- d Press A/V WINDOW +/- to select "YES" or "NO."

- e Press RETURN.  
The setting is complete.

To set the time, press A/V WINDOW +/- until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.

- 5 Press RETURN.  
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

- 6 Press A/V WINDOW +/- to select "MON."  
Each time you press A/V WINDOW +/-, the day changes consecutively.

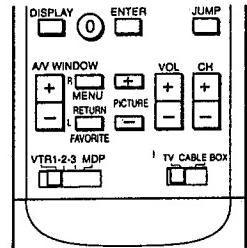


## Using Timer-Activated Functions



### Setting the clock — CURRENT TIME SET (Cont'd. from prev. page)

Remote Commander

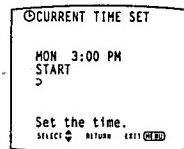


#### 7 Press RETURN.

The hour and am/pm displays turn red.

#### 8 Press A/V WINDOW +/- to set "3:00PM."

Each time you press A/V WINDOW +/-, the hour changes in sequence beginning with "12:00AM."



#### 9 Press RETURN.

The minute display turns red.

#### 10 Press A/V WINDOW +/- to select "15" (minutes).

Each time you press A/V WINDOW +/-, the minutes change in sequence.



### 11 Press RETURN. The cursor points to "START."

### 12 Check the actual time, and press RETURN to start the clock. The setting is complete.

#### To reset the time

Display the CURRENT TIME SET screen and repeat steps 5 – 12.

#### To display the current time

Press DISPLAY.

#### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "▷ MENU."

Then press RETURN.

#### To return to the main menu

Repeat the above, until you reach the main menu.

#### To return to the normal screen.

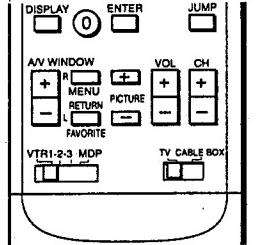
Press MENU.

### Setting the ON/OFF TIMER

Follow these instructions to make the program of your choice appear on the screen at a specified time.

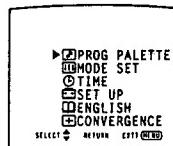
**Example:** Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



#### 1 Press MENU.

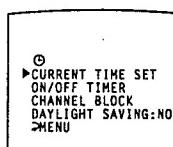
The main menu appears.



#### 2 Press A/V WINDOW +/- until the cursor points to "TIME."

#### 3 Press RETURN.

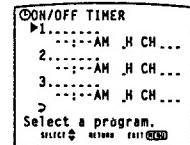
The time menu appears.



#### 4 Press A/V WINDOW +/- until the cursor points to "ON/OFF TIMER."

### 5 Press RETURN.

The ON/OFF TIMER screen appears, and the cursor points to "1."



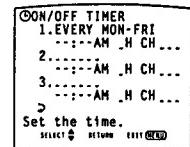
#### 6 To set program 1, press RETURN.

(To set program 2 or 3, press A/V WINDOW +/- until the cursor points to that program; then press RETURN.)

The day input space turns red.

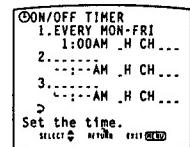
#### 7 Press A/V WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.

Each time you press A/V WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 61).



#### 8 Press A/V WINDOW +/- to select "1:00AM"; then press RETURN.

Each time you press A/V WINDOW +/-, the hour changes in sequence.

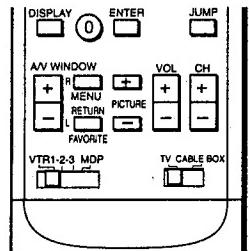


(Continued)

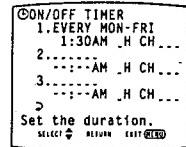
## Using Timer-Activated Functions

### Setting the ON-OFF TIMER (Cont'd from prev. page)

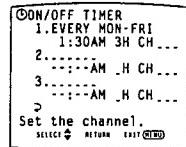
#### Remote Commander



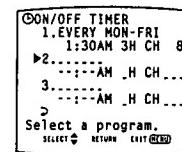
- 9** Press A/V WINDOW +/- to select "30" (minutes); then press RETURN.  
Each time you press A/V WINDOW +/-, the minutes change in sequence.



- 10** Press A/V WINDOW +/- to select "3" (hour duration); then press RETURN.  
Each time you press A/V WINDOW +/-, the duration changes from "1" - "6" in sequence.



- 11** Press A/V WINDOW +/- to select "8" (channel); then press RETURN.  
The TIMER/STAND BY lamp lights, indicating that the setting is complete.  
Each time you press A/V WINDOW +/-, the channel number changes from 1 - 125 in sequence.



The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.  
Press RETURN and repeat steps 6 - 11.

To erase an ON/OFF TIMER setting  
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day.  
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

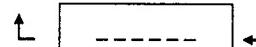
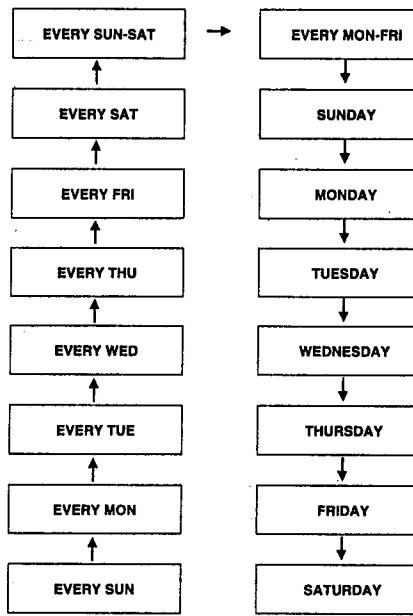
To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

**Note**  
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

**Fig. 1**  
Selecting the day(s) of the week  
When you press A/V WINDOW +, the days of the week appear in the following order:



N

The components identified by shading and mark are critical for safety.  
Replace only with part number specified.

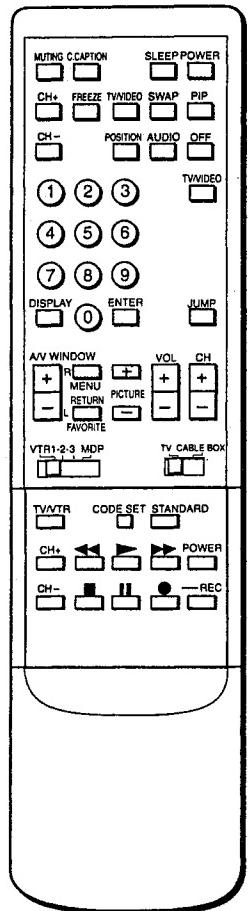
Les composants identifiés par une trame et une marque sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;DIODE&gt;</b>											
D801	8-719-928-08	DIODE ERD28-08S		Q801	8-729-201-61	TRANSISTOR 2SC2555-1					
D802	8-719-300-80	DIODE RU-1C		Q802	8-729-119-80	TRANSISTOR 2SC2688-LK					
D803	8-719-109-85	DIODE RD5.1ES-B2		Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D804	8-719-911-19	DIODE ISS119		Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D805	8-719-911-19	DIODE ISS119		Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D806	8-719-109-85	DIODE RD5.1ES-B2		Q806	8-729-119-80	TRANSISTOR 2SC2688-LK					
D807	8-719-109-85	DIODE RD5.1ES-B2		Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D808	8-719-911-19	DIODE ISS119		Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D809	8-719-911-19	DIODE ISS119		Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D810	8-719-911-19	DIODE ISS119		Q811	8-729-805-07	TRANSISTOR 2SD1887-CA					
D811	8-719-109-85	DIODE RD5.1ES-B2		Q812	8-729-019-88	TRANSISTOR 2SC3675-CB					
D812	8-719-911-19	DIODE ISS119		Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D813	8-719-911-19	DIODE ISS119		Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D814	8-719-911-19	DIODE ISS119		Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D815	8-719-110-36	DIODE RD13ES-B2		Q853	8-729-820-98	TRANSISTOR 2SC4256CB					
D817	8-719-945-80	DIODE ERC06-15S		<b>&lt;RESISTOR&gt;</b>							
D818	8-719-911-19	DIODE ISS119		R801	1-216-378-11	METAL OXIDE	5.6	5%	2W	F	
D820	8-719-911-19	DIODE ISS119		R802	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
D850	8-719-109-71	DIODE RD3.9ES-B1		R803	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
<b>D851</b>	<b> 8-719-903-09</b>	<b>DIODE V30N</b>		R804	1-249-429-11	CARBON	10K	5%	1/4W		
D852	8-719-911-19	DIODE ISS119		R805	1-249-423-11	CARBON	3.3K	5%	1/4W		
<b>D853</b>	<b> 8-719-903-09</b>	<b>DIODE V30N</b>		R806	1-249-425-11	CARBON	4.7K	5%	1/4W		
D891	8-719-110-49	DIODE RD18ES-B2		R807	1-249-441-11	CARBON	100K	5%	1/4W		
D892	8-719-110-49	DIODE RD18ES-B2		R808	1-249-417-11	CARBON	1K	5%	1/4W		
<b>&lt;IC&gt;</b>											
IC801	8-759-231-58	IC TA7812S		R809	1-249-417-11	CARBON	1K	5%	1/4W		
IC802	8-759-103-93	IC UPC393C		R810	1-249-441-11	CARBON	100K	5%	1/4W		
IC803	8-759-990-82	IC TL082CP		R811	1-249-421-11	CARBON	2.2K	5%	1/4W		
IC804	8-759-103-93	IC UPC393C		R812	1-249-420-11	CARBON	1.8K	5%	1/4W		
IC805	8-759-100-75	IC UPC1394C		R813	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F	
<b>&lt;COIL&gt;</b>											
L801	1-459-862-11	COIL, CHOKE 90UH		R814	1-249-409-11	CARBON	220	5%	1/4W		
L802	1-424-603-11	COIL, CHOKE 1.05MMH		R815	1-249-415-11	CARBON	680	5%	1/4W		
L803	1-459-313-00	COIL WITH CORE (HWC)		R816	1-214-777-00	METAL	100K	1%	1/4W		
L804	1-410-482-31	INDUCTOR 100UH		R817	1-215-471-00	METAL	120K	1%	1/4W		
<b>D805</b>	<b> 1-424-603-11</b>	<b>COIL, CHOKE 1.05MMH</b>		R818	1-215-471-00	METAL	120K	1%	1/4W		
<b>&lt;CONNECTOR&gt;</b>											
N1	1-506-348-99	PIN, CONNECTOR 3P		R819	1-215-450-00	METAL	16K	1%	1/4W		
N2	*1-564-508-11	PLUG, CONNECTOR 5P		R820	1-215-451-00	METAL	18K	1%	1/4W		
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R821	1-249-423-11	CARBON	3.3K	5%	1/4W		
N4	*1-564-507-11	PLUG, CONNECTOR 4P		R822	1-249-433-11	CARBON	22K	5%	1/4W		
N5	*1-564-508-11	PLUG, CONNECTOR 5P		R823	1-249-429-11	CARBON	10K	5%	1/4W		
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R824	1-215-469-00	METAL	100K	1%	1/4W		
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R825	1-215-453-00	METAL	22K	1%	1/4W		
N8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R826	1-214-962-00	METAL	820K	1%	1/4W		
N9	1-506-348-99	PIN, CONNECTOR 3P		R827	1-214-764-00	METAL	30K	1%	1/4W		
N10	*1-564-511-41	PLUG, CONNECTOR 8P		R828	1-215-455-00	METAL	27K	1%	1/4W		
N20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P		R829	1-215-455-00	METAL	27K	1%	1/4W		
N21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		R830	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R831	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N851	*1-506-371-00	PIN, CONNECTOR 2P		R832	1-249-417-11	CARBON	1K	5%	1/4W		
N853	*1-506-371-00	PIN, CONNECTOR 2P		R833	1-249-419-11	CARBON	1.5K	5%	1/4W		
NL801	1-519-108-99	LAMP, NEON		R834	1-249-419-11	CARBON	1.5K	5%	1/4W		
				R835	1-215-429-00	METAL	2.2K	1%	1/4W		
<b>&lt;NEON LAMP&gt;</b>											
				R836	1-215-435-00	METAL	3.9K	1%	1/4W		
				R837	1-249-433-11	CARBON	22K	5%	1/4W		
				R838	1-249-435-11	CARBON	33K	5%	1/4W		
				R839	1-249-438-11	CARBON	56K	5%	1/4W		
				R840	1-249-434-11	CARBON	27K	5%	1/4W		
				R841	1-249-429-11	CARBON	10K	5%	1/4W		
				R842	1-249-435-11	CARBON	33K	5%	1/4W		
				R843	1-249-423-11	CARBON	3.3K	5%	1/4W		

# Selecting a Picture and Sound Mode

This projection TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.



(with video control  
cover open)

1 Press MENU.

The main menu appears, and the cursor points to "PROG PALETTE."

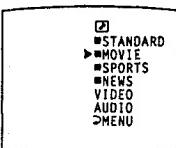
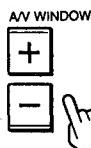


2 Press RETURN.

The program palette menu appears.



3 Press A/V WINDOW +/- until the cursor points to "MOVIE."



4 Press RETURN.

The "MOVIE" display turns green, indicating that MOVIE mode is selected.



To select a different mode  
Repeat steps 3 – 4.

## Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.



## When you select STANDARD mode

You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Projection TV," pp. 44 – 52) are cancelled and the original factory settings are restored.

## When you select MOVIE mode

You receive a finely detailed picture, and a theatrical audio effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

## When you select SPORTS mode

You receive a vivid, bright picture, and sound with a sports stadium effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

## When you select NEWS mode

Picture noise is reduced, and you receive clear voice reproduction. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 52.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to ". ▶ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

**N S**

The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R844	1-249-433-11	CARBON	22K 5% 1/4W				
R845	1-249-435-11	CARBON	33K 5% 1/4W				
R846	1-249-429-11	CARBON	10K 5% 1/4W				
R847	1-214-761-00	METAL	22K 1% 1/4W				
R848	1-215-429-00	METAL	2.2K 1% 1/4W				
R849	1-215-421-00	METAL	1K 1% 1/4W				
R850	1-215-429-00	METAL	2.2K 1% 1/4W				
R851	1-215-404-00	METAL	200 1% 1/4W				
<b>█ R852 ▲</b>	1-215-469-00	METAL	100K 1% 1/4W		<b>*A-1394-421-A</b>	S BOARD, COMPLETE	
R853	1-215-469-00	METAL	100K 1% 1/4W			*****	
R854	1-249-430-11	CARBON	12K 5% 1/4W				
R855	1-215-469-00	METAL	100K 1% 1/4W				
R856	1-249-430-11	CARBON	12K 5% 1/4W				
R857	1-249-433-11	CARBON	22K 5% 1/4W				
R858	1-249-413-11	CARBON	470 5% 1/4W				
R859	1-249-435-11	CARBON	33K 5% 1/4W				
R860	1-249-441-11	CARBON	100K 5% 1/4W				
R861	1-249-421-11	CARBON	2.2K 5% 1/4W				
R862	1-249-434-11	CARBON	27K 5% 1/4W				
R863	1-249-431-11	CARBON	15K 5% 1/4W				
R864	1-249-423-11	CARBON	3.3K 5% 1/4W				
R865	1-249-440-11	CARBON	82K 5% 1/4W				
R866	1-249-436-11	CARBON	39K 5% 1/4W				
R867	1-249-437-11	CARBON	47K 5% 1/4W				
R868	1-249-428-11	CARBON	8.2K 5% 1/4W				
R869	1-249-429-11	CARBON	10K 5% 1/4W				
R870	1-249-417-11	CARBON	1K 5% 1/4W				
R871	1-249-440-11	CARBON	82K 5% 1/4W				
R872	1-249-423-11	CARBON	3.3K 5% 1/4W				
R873	1-249-441-11	CARBON	100K 5% 1/4W				
R874	1-249-435-11	CARBON	33K 5% 1/4W				
R875	1-249-421-11	CARBON	2.2K 5% 1/4W				
R876	1-215-426-00	METAL	1.6K 1% 1/4W				
R877	1-249-435-11	CARBON	33K 5% 1/4W				
R878	1-249-441-11	CARBON	100K 5% 1/4W				
R879	1-216-489-11	METAL OXIDE	27K 5% 3W F				
R880	1-249-429-11	CARBON	10K 5% 1/4W				
R881	1-214-761-00	METAL	22K 1% 1/4W				
R882	1-249-433-11	CARBON	22K 5% 1/4W				
R883	1-249-417-11	CARBON	1K 5% 1/4W				
R884	1-215-894-11	METAL OXIDE	2.2K 5% 2W F				
R885	1-249-438-11	CARBON	56K 5% 1/4W				
R886	1-249-414-11	CARBON	560 5% 1/4W				
R887	1-215-397-00	METAL	100 1% 1/4W				
R888	1-249-410-11	CARBON	270 5% 1/4W				
R889	1-249-417-11	CARBON	1K 5% 1/4W				
R890	1-249-417-11	CARBON	1K 5% 1/4W				
R891	1-216-489-11	METAL OXIDE	27K 5% 3W F				
R892	1-249-417-11	CARBON	1K 5% 1/4W F				
R893	1-215-453-00	METAL	22K 1% 1/4W				
R894	1-249-401-11	CARBON	47 5% 1/4W				
R895	1-202-731-00	SOLID	10M 20% 1/2W				
R896	1-260-111-11	CARBON	10K 5% 1/2W				
R897	1-247-881-00	CARBON	120K 5% 1/4W				
R898	1-202-730-00	SOLID	8.2M 20% 1/2W				
R899	1-249-429-11	CARBON	10K 5% 1/4W				
R903	1-247-735-11	SOLID	47 20% 1/2W				
R904	1-215-928-11	METAL OXIDE	68K 5% 3W F				
R905	1-215-911-11	METAL OXIDE	100 5% 3W F				
<b>&lt;SPARK GAP&gt;</b>							
SG801	1-519-422-11	GAP, SPARK					
<b>&lt;TRANSISTOR&gt;</b>							
Q3441	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q3444	8-729-903-10	TRANSISTOR FMW1					

S U

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
<b>&lt;RESISTOR&gt;</b>								
R3401	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3402	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*A-1394-422-A U BOARD, COMPLETE			
R3403	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3404	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3405	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3406	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	*****			
R3407	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3408	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	*****			
R3409	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3441	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3442	1-216-041-00	METAL GLAZE	470 5%	1/10W	*****			
R3443	1-216-041-00	METAL GLAZE	470 5%	1/10W	*****			
R3444	1-216-077-00	METAL GLAZE	15K 5%	1/10W	*****			
R3445	1-216-689-11	METAL GLAZE	39K 5%	1/10W	*****			
R3446	1-216-085-00	METAL GLAZE	33K 5%	1/10W	*****			
R3449	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3450	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3451	1-216-093-00	METAL GLAZE	68K 5%	1/10W	*****			
R3452	1-216-079-00	METAL GLAZE	18K 5%	1/10W	*****			
R3453	1-216-679-11	METAL CHIP	15K 0.50%	1/10W	*****			
R3454	1-216-037-00	METAL GLAZE	330 5%	1/10W	*****			
R3455	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3456	1-216-077-00	METAL GLAZE	15K 5%	1/10W	*****			
R3463	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3464	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3465	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3472	1-216-091-00	METAL GLAZE	56K 5%	1/10W	*****			
R3473	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3474	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3504	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	*****			
R3509	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3511	1-216-025-00	METAL GLAZE	100 5%	1/10W	*****			
R3512	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3513	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3514	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	*****			
R3519	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3520	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3521	1-216-049-00	METAL GLAZE	1K 5%	1/10W	*****			
R3525	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3526	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3528	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3529	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3530	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3531	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3532	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
R3535	1-216-033-00	METAL GLAZE	220 5%	1/10W	*****			
R3537	1-216-295-00	METAL GLAZE	0 5%	1/10W	*****			
R3540	1-216-073-00	METAL GLAZE	10K 5%	1/10W	*****			
<b>&lt;CONNECTOR&gt;</b>								
S42	*1-568-378-21	PIN, CONNECTOR 3P			D1005	8-719-110-36	DIODE RD13ES-B2	
S43	*1-564-508-11	PLUG, CONNECTOR 5P			D1009	8-719-110-36	DIODE RD13ES-B2	
S45	*1-564-511-71	PLUG, CONNECTOR 8P			D1010	8-719-110-36	DIODE RD13ES-B2	
S46	*1-564-506-11	PLUG, CONNECTOR 3P			D1011	8-719-110-36	DIODE RD13ES-B2	
S47	*1-564-506-11	PLUG, CONNECTOR 3P			D1012	8-719-110-36	DIODE RD13ES-B2	
<b>&lt;CRYSTAL&gt;</b>								
X3401	1-577-082-11	VIBRATOR, CERAMIC			D1013	8-719-110-36	DIODE RD13ES-B2	
X3441	1-577-364-11	VIBRATOR, CERAMIC			D1017	8-719-110-36	DIODE RD13ES-B2	
					D1018	8-719-110-36	DIODE RD13ES-B2	
					D1019	8-719-110-36	DIODE RD13ES-B2	
					D1020	8-719-109-66	DIODE RD3.3ES-B2	
<b>&lt;BLOCK&gt;</b>								
CM1002 1-466-162-31 BLOCK, COM FILTER (CFB-4)								
<b>&lt;DIODE&gt;</b>								

U UT

UT

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by  $\blacksquare$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1168	1-126-301-11	ELECT	1MF
C1199	1-102-129-00	CERAMIC	0.01MF
C1200	1-102-129-00	CERAMIC	0.01MF

## &lt;DIODE&gt;

D1152	8-719-110-36	DIODE	RD13ES-B2
D1158	8-719-110-36	DIODE	RD13ES-B2
D1159	8-719-110-36	DIODE	RD13ES-B2
D1160	8-719-110-36	DIODE	RD13ES-B2
D1163	8-719-110-36	DIODE	RD13ES-B2
D1164	8-719-110-36	DIODE	RD13ES-B2
D1165	8-719-110-36	DIODE	RD13ES-B2
D1166	8-719-110-36	DIODE	RD13ES-B2
D1167	8-719-110-36	DIODE	RD13ES-B2
D1168	8-719-110-36	DIODE	RD13ES-B2
D1169	8-719-110-36	DIODE	RD13ES-B2
D1170	8-719-110-36	DIODE	RD13ES-B2

## &lt;JACK&gt;

J1001	1-537-187-11	TERMINAL, PUSH (4P)
J1003	1-573-970-11	BLOCK, (S) TERMINAL
J1004	1-695-049-11	BLOCK, (S) TERMINAL
J1005	1-695-054-11	JACK BLOCK, PIN
J1006	1-573-970-11	BLOCK, (S) TERMINAL
J1007	1-573-969-11	JACK BLOCK, PIN
J1008	1-573-969-11	JACK BLOCK, PIN

## &lt;RESISTOR&gt;

R1153	1-249-403-11	CARBON	68	5%	1/4W
R1164	1-247-895-00	CARBON	470K	5%	1/4W
R1165	1-247-895-00	CARBON	470K	5%	1/4W
R1166	1-247-895-00	CARBON	470K	5%	1/4W
R1167	1-247-895-00	CARBON	470K	5%	1/4W
R1168	1-247-895-00	CARBON	470K	5%	1/4W
R1169	1-249-403-11	CARBON	68	5%	1/4W
R1170	1-249-403-11	CARBON	68	5%	1/4W
R1171	1-247-895-00	CARBON	470K	5%	1/4W
R1172	1-247-895-00	CARBON	470K	5%	1/4W
R1173	1-247-804-11	CARBON	75	5%	1/4W
R1174	1-247-895-00	CARBON	470K	5%	1/4W
R1175	1-247-895-00	CARBON	470K	5%	1/4W
R1176	1-247-804-11	CARBON	75	5%	1/4W
R1177	1-247-895-00	CARBON	470K	5%	1/4W
R1178	1-247-895-00	CARBON	470K	5%	1/4W
R1179	1-247-895-00	CARBON	470K	5%	1/4W
R1180	1-247-804-11	CARBON	75	5%	1/4W
R1181	1-247-804-11	CARBON	75	5%	1/4W
R1182	1-247-895-00	CARBON	470K	5%	1/4W
R1183	1-247-895-00	CARBON	470K	5%	1/4W
R1184	1-247-895-00	CARBON	470K	5%	1/4W
R1185	1-247-895-00	CARBON	470K	5%	1/4W
R1186	1-247-895-00	CARBON	470K	5%	1/4W
R1188	1-247-804-11	CARBON	75	5%	1/4W
R1191	1-249-425-11	CARBON	4.7K	5%	1/4W
R1192	1-249-425-11	CARBON	4.7K	5%	1/4W
R1193	1-249-425-11	CARBON	4.7K	5%	1/4W
R1194	1-249-425-11	CARBON	4.7K	5%	1/4W
R1196	1-249-426-11	CARBON	5.6K	5%	1/4W

## &lt;SWITCH&gt;

S1150 1-572-198-11 SWITCH, KEYBOARD

## &lt;CONNECTOR&gt;

UT11	*1-564-519-11	PLUG, CONNECTOR 4P
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
UT35	*1-564-518-11	PLUG, CONNECTOR 3P

$\Delta$ 1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)
$\Delta$ 1-451-396-21	DEFLECTION YOKE (Y936PA)
$\Delta$ 1-452-443-13	NECK ASSY, PICTURE TUBE(NA367)
$\Delta$ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE
1-544-768-11	SPEAKER (13CM) (COAXIAL)

*1-555-110-00	CABLE, PIN
1-561-306-00	JACK, PIN (F)
1-574-590-31	LEAD ASSY, HIGH-VOLTAGE
*1-696-002-12	CORD, POWER (WITH NOISE FILTER)
V902 $\Delta$ 8-736-631-05	PICTURE TUBE (SD-249 (G))

V903  $\Delta$  8-736-632-05 PICTURE TUBE (SD-249 (B))V901  $\Delta$  8-736-633-05 PICTURE TUBE (SD-249 (R))

$\Delta$ R900 $\Delta$	METAL FILM	1/4W
$\Delta$ R901 $\Delta$	METAL FILM	1/4W
$\Delta$ R902 $\Delta$	METAL FILM	1/4W

## ACCESSORIES AND PACKING MATERIALS

*3-704-356-01	SHEET (STANDARD), PROTECTION
3-756-987-21	MANUAL, INSTRUCTION
3-756-987-31	MANUAL, INSTRUCTION (KP-41EXR96(C))
3-756-987-41	MANUAL, INSTRUCTION (KP-41EXR96(U))
*4-030-895-01	JOINT

*4-036-102-01	CUSHION (UPPER) (ASSY)
*4-036-106-01	INDIVIDUAL CARTON
*4-036-107-01	TRAY
*4-036-108-01	CUSHION (LOWER) (ASSY)
*4-381-155-01	BAG, PROTECTION

## REMOTE COMMANDER

1-693-114-21	REMOTE COMMANDER (RM-Y112A)
9-902 719-01	COVER (FOR RM-Y112A)
9-998-214-01	COVER, BATTERY (FOR RM-Y112A)



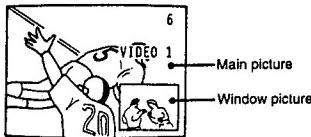
## Chapter 3: Using Advanced Features

### Watching Two Pictures at Once (PIP)

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function.

KP-41EXR96 is equipped with one-tuner PIP. To watch two TV channels simultaneously, you must first connect a VCR to the projection TV, which will enable you to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 15-19.)

Other models are equipped with two-tuner PIP, allowing you to watch two TV channels at once.



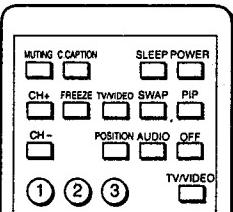
#### Picture-In-Picture special features

When watching the main picture and a window picture, you can:

- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

#### Displaying a window picture

Remote Commander



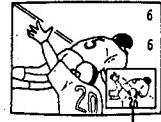
Press PIP to display a window picture



Input source mode or TV channel for the main picture



Input source mode or TV channel for the window picture



A window picture appears in the last mode you watched.  
Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

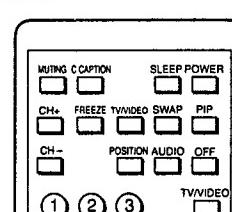
To turn PIP function off

Press OFF.

The window picture disappears.

#### Changing the window picture input mode

Remote Commander



1 Press PIP to display a window picture.



2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode.  
Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.



To change TV channels in the window picture  
Press CH +/- in the PIP control area.

#### Notes

- The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 62-63.)

#### To receive the window picture sound

Press AUDIO.

The display appears for a few seconds, indicating that the window picture sound is being received.

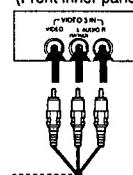
#### To restore the main picture sound

Press AUDIO again.

#### Displaying CATV Input as a window picture

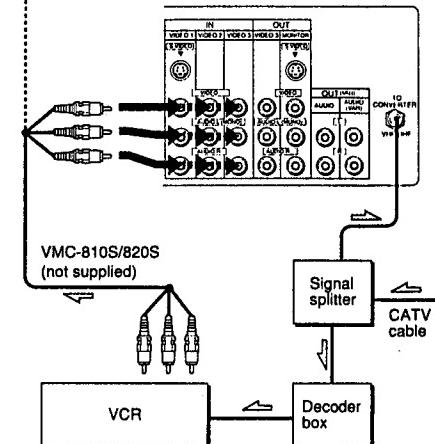
To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.

(Front inner panel)



Signal flow

(Rear of projection TV)



After making the above connections, turn the cable connection on by following the steps on pp. 26-27; then continue with the steps below.

**1-2** Follow steps 1-2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

**3** Put your VCR on an inactive channel (channel 3 or 4).

**4** Change pay cable TV channels with the decoder box.

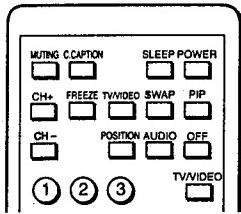
To control your cable converter box with the supplied Remote Commander  
See p. 70.

## Watching Two Pictures at Once (PIP)

### Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

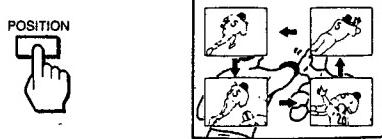
#### Remote Commander



1 Press PIP to display a window picture.



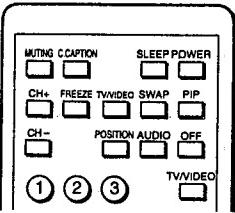
2 Press POSITION.  
Each time you press POSITION, the window picture moves as illustrated.



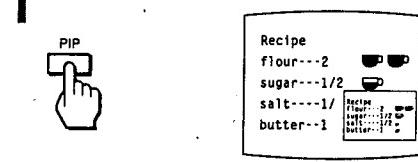
### Displaying a still picture

Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on.

#### Remote Commander



1 Press PIP to display a window picture.



2 Press FREEZE.  
The window picture image remains still on the screen.

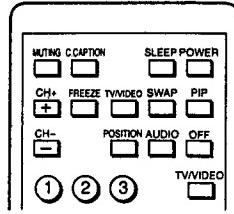


To restore the normal picture  
Press FREEZE again.

### Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

#### Remote Commander



1 Press PIP to display a window picture.



2 Press SWAP.  
Each time you press SWAP, the images from the main and window pictures switch places.



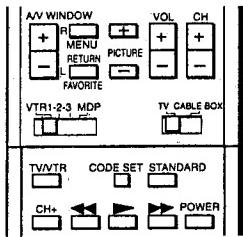
# Adjusting the Projection TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 38 – 39).

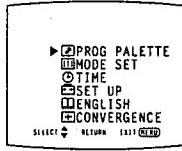
## Adjusting the picture

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

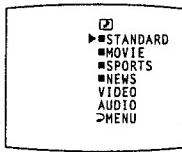
Remote Commander (with video control cover open)



1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



2 Press RETURN.  
The program palette menu appears.



3 Press A/V WINDOW +/- until the cursor points to "VIDEO."

4 Press RETURN.  
The VIDEO screen appears.



5 Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

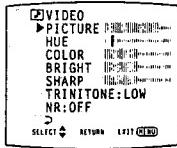
6 Press RETURN.  
The adjustment screen appears.



7 Press A/V WINDOW +/- to make the adjustment.

Picture quality	Press A/V WINDOW –	Press A/V WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

8 Press RETURN.  
The adjustment is complete, and the VIDEO screen automatically reappears.



To adjust other items  
Repeat steps 5 – 8.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and press RETURN;  
or, press STANDARD on the Remote Commander.  
*All the items, including TRINITONE (p. 46) and NR (p. 47) return to their original factory settings.*

To adjust picture contrast  
You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.



Press + to increase picture contrast with vivid color.  
Press – to decrease picture contrast with soft color.  
*The picture adjustment screen appears.*

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

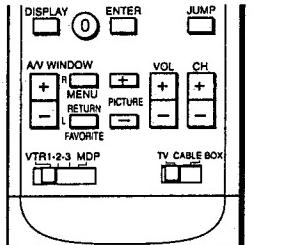
To return to the normal screen  
Press MENU.

## Adjusting the Projection TV

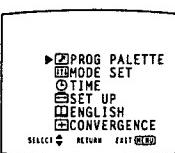
### Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

#### Remote Commander



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

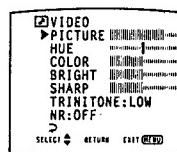


- 2** Press RETURN.  
The program palette menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4** Press RETURN.  
The VIDEO screen appears.



- 5** Press A/V WINDOW +/- until the cursor points to "TRINITONE."

- 6** Press RETURN.  
The mode display turns red.

- 7** Press A/V WINDOW +/- to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).  
Select "LOW" to make the picture warm (reddish).

- 8** Press RETURN.  
The setting is complete.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

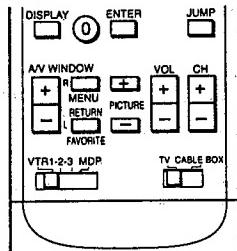
**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU.

### Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

#### Remote Commander



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



- 2** Press RETURN.  
The program palette menu appears.



- 3** Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4** Press RETURN.  
The VIDEO screen appears.

- 5** Press A/V WINDOW +/- until the cursor points to "NR."



- 6** Press RETURN.  
The mode display turns red.

- 7** Press A/V WINDOW +/- to select "ON" or "OFF."  
Select "ON" to reduce picture noise..  
Select "OFF" to restore the normal picture.

- 8** Press RETURN.  
The setting is complete.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU.

## Adjusting the Projection TV

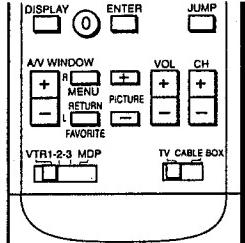
### Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

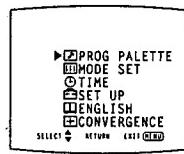
#### Note

If the projection TV is in TV, VIDEO 2 or VIDEO 3 mode, the "S-VIDEO" display is shaded and cannot be selected. Press TV/VIDEO on the projection TV or on the Remote Commander to change to VIDEO 1 mode.

#### Remote Commander

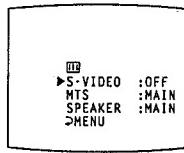


- 1** Press MENU.  
The main menu appears.



- 2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3** Press RETURN.  
The mode set menu appears, with the cursor pointing to "S-VIDEO."



- 4** Press RETURN.  
The mode display turns red.

- 5** Press A/V WINDOW +/- to select "ON" or "OFF."

- 6** Press RETURN.  
The setting is complete.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

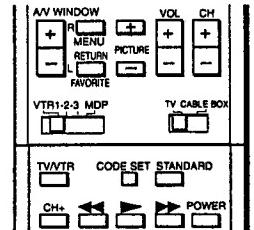
To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

### Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

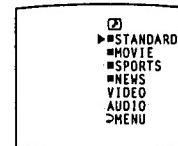
Remote Commander (with video control cover open)



- 1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



- 2** Press RETURN.  
The program palette menu appears.



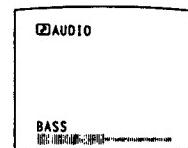
- 3** Press A/V WINDOW +/- until the cursor points to "AUDIO."

- 4** Press RETURN.  
The AUDIO screen appears.



- 5** Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

- 6** Press RETURN.  
The adjustment screen appears.



- 7** Press A/V WINDOW +/- to make the adjustment.

Sound quality	Press A/V WINDOW -	Press A/V WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

- 8** Press RETURN.  
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items  
Repeat steps 5 – 9.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.

All the items, including SRS mode (p. 50) return to their original factory settings.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

## Adjusting the Projection TV

### Selecting an SRS (Sound Retrieval System) mode

For lifelike sound reproduction, follow the instructions below to select the SRS mode you prefer.

In SRS AUTO mode, SRS functions in both monaural and stereo modes.

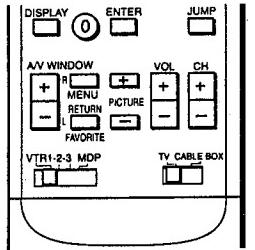
Monaural sound programs will have a 'simulated stereo' effect.

In SRS STEREO mode, SRS functions only when a stereo program is received.

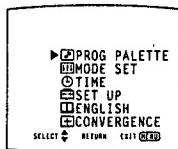
The **STEREO** lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

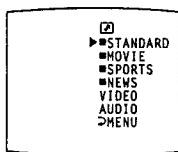
#### Remote Commander



**1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."



**2** Press RETURN.  
The program palette menu appears.



**3** Press A/V WINDOW +/- until the cursor points to "AUDIO."

**4** Press RETURN.  
The AUDIO screen appears.



**5** Press A/V WINDOW +/- until the cursor points to the SRS mode you want.

**6** Press RETURN.  
The mode is selected.

To change the SRS mode  
Repeat steps 5 – 6.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "DMENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

### Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

Select MAIN mode to listen to stereo sound.  
The **STEREO** lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

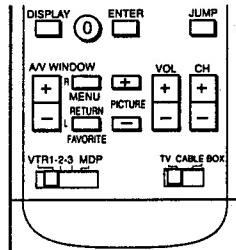
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

#### Note

If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.

Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

#### Remote Commander

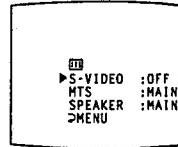


**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

**3** Press RETURN.  
The mode set menu appears.



**4** Press A/V WINDOW +/- until the cursor points to "MTS."

**5** Press RETURN.  
The mode display turns red.

**6** Press A/V WINDOW +/- to select the mode you want.  
Each time you press A/V WINDOW +/-, "MAIN," "SAP" and "MONO" appear in sequence.

**7** Press RETURN.  
The mode is selected.

#### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "DMENU."  
Then press RETURN.

#### To return to the main menu

Repeat the above, until you reach the main menu.

#### To return to the normal screen

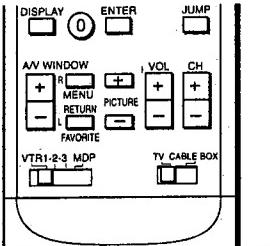
Press MENU.

## Adjusting the Projection TV

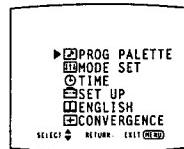
### Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

#### Remote Commander

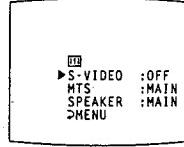


- 1** Press MENU.  
The main menu appears.



- 2** Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3** Press RETURN.  
The mode set menu appears.



- 4** Press A/V WINDOW +/- until the cursor points to "SPEAKER."

- 5** Press RETURN.  
The mode display turns red.

- 6** Press A/V WINDOW +/- to select "MAIN" or "CENTER."

- 7** Press RETURN.  
The setting is complete.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU.

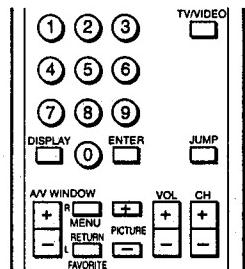
## Customizing the Screen Display

### Setting channel captions — CH CAPTION

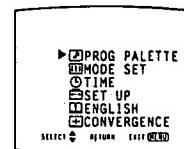
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

#### Remote Commander

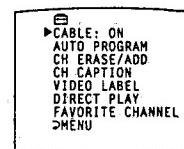


- 1** Press MENU.  
The main menu appears.



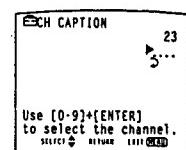
- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3** Press RETURN.  
The set up menu appears.

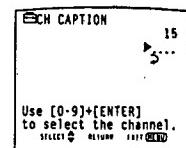


- 4** Press A/V WINDOW +/- until the cursor points to "CH CAPTION."

- 5** Press RETURN.  
The CH CAPTION screen appears.

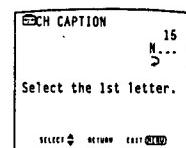


- 6** Press CH +/-, or press 1, 5 and ENTER to set channel "15."



- 7** Press RETURN.  
The first caption space turns red.

- 8** Press A/V WINDOW +/- to select "N."  
Each time you press A/V WINDOW +/-, "0" – "9," "A" – "Z," "&," "/", "-", and "\_" (blank space) appear in sequence.

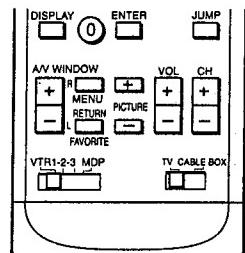


- 9** Press RETURN.  
The second caption space turns red.

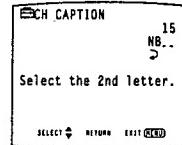
## Customizing the Screen Display

### Setting channel captions – CH CAPTION (Cont'd. from prev. page)

Remote Commander

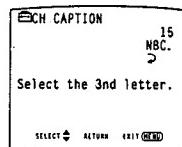


**10** Press A/V WINDOW +/- to select "B."



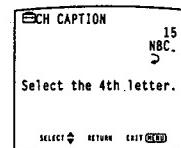
**11** Press RETURN.  
The third caption space turns red.

**12** Press A/V WINDOW +/- to select "C."



**13** Press RETURN.  
The fourth caption space turns red.

**14** Press A/V WINDOW +/- to select a blank space.



**15** Press RETURN.  
The setting is complete.  
When you select or display the channel number, the channel caption also appears.

To caption more channels

Repeat steps 6 – 15.

To erase unnecessary captions

Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.  
The caption for that channel is erased.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"► MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

Note

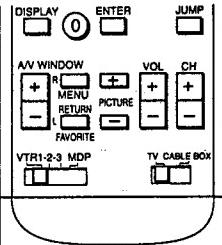
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

### Setting VIDEO LABEL

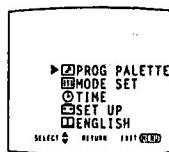
Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."

Remote Commander



**1** Press MENU.  
The main menu appears.



**2** Press A/V WINDOW +/- until the cursor points to  
"SET UP."

**3** Press RETURN.  
The set up menu appears.



**4** Press A/V WINDOW +/- until the cursor points to  
"VIDEO LABEL."

**5** Press RETURN.  
The VIDEO LABEL screen appears.



**6** Press A/V WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

**7** Press RETURN.  
The label display turns red.

**8** Press A/V WINDOW +/- to select "VHS."



Each time you press A/V WINDOW +/-, the label changes:

VIDEO 1  
VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO

VIDEO 2  
VIDEO 2 → BETA → 8mm → VHS → LD

VIDEO 3  
VIDEO 3 → BETA → 8mm → VHS → LD

**9** Press RETURN.  
The setting is complete.  
When you select or display the video mode, the video label appears.

To label other Input modes  
Repeat steps 6 – 9.

To change a label  
Same as above.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"► MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.  
To return to the normal screen  
Press MENU.

# Using Timer-Activated Functions



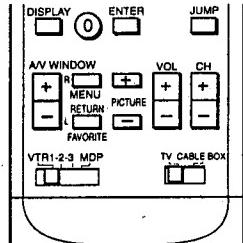
## Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

### When setting DAYLIGHT SAVING:

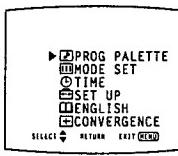
- After the first Sunday in April (spring daylight savings)  
Set to "YES" before setting the current time.  
Then, on the last Sunday in October (fall daylight savings), set to "NO."  
*All the time-related settings automatically move one hour back.*
- After the last Sunday in October (fall daylight savings)  
Set to "NO" before setting the current time.  
Then, on the first Sunday in April (spring daylight savings), set to "YES."  
*All the time-related settings automatically move one hour ahead.*

### Remote Commander



Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.  
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.  
The time menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

- 5 Press RETURN.  
The mode display turns red.

- 6 Press A/V WINDOW +/- to select "YES" or "NO."

- 7 Press RETURN.  
The setting is complete.

### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

### To return to the main menu

Repeat the above, until you reach the main menu.

### To return to the normal screen.

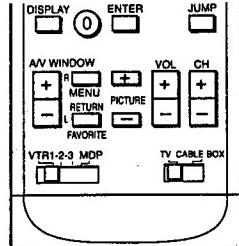
Press MENU.

## Setting the clock — CURRENT TIME SET

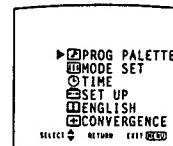
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER and CHANNEL BLOCK).

**Example:** Set the time to 3:15 PM, Monday.

### Remote Commander



- 1 Press MENU.  
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.  
The time menu appears, and the cursor points to "CURRENT TIME SET."



- 4 Press RETURN again.  
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.



If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

### To set daylight saving

- a Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

- b Press RETURN.  
The time menu appears, and the cursor points to "DAYLIGHT SAVING."

- c Press RETURN.

- d Press A/V WINDOW +/- to select "YES" or "NO."

- e Press RETURN.  
The setting is complete.

To set the time, press A/V WINDOW +/- until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.

- 5 Press RETURN.  
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

- 6 Press A/V WINDOW +/- to select "MON."  
Each time you press A/V WINDOW +/-, the day changes consecutively.

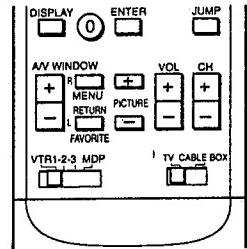


## Using Timer-Activated Functions



### Setting the clock — CURRENT TIME SET (Cont'd. from prev. page)

Remote Commander

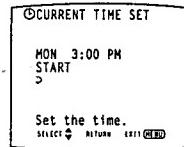


#### 7 Press RETURN.

The hour and am/pm displays turn red.

#### 8 Press A/V WINDOW +/- to set "3:00PM."

Each time you press A/V WINDOW +/-, the hour changes in sequence beginning with "12:00AM."



#### 9 Press RETURN.

The minute display turns red.

#### 10 Press A/V WINDOW +/- to select "15" (minutes).

Each time you press A/V WINDOW +/-, the minutes change in sequence.



### 11 Press RETURN. The cursor points to "START."

### 12 Check the actual time, and press RETURN to start the clock. The setting is complete.

#### To reset the time

Display the CURRENT TIME SET screen and repeat steps 5 – 12.

#### To display the current time

Press DISPLAY.

#### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "▷ MENU."

Then press RETURN.

#### To return to the main menu

Repeat the above, until you reach the main menu.

#### To return to the normal screen.

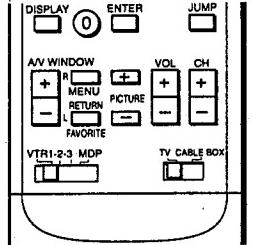
Press MENU.

### Setting the ON/OFF TIMER

Follow these instructions to make the program of your choice appear on the screen at a specified time.

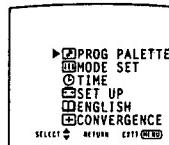
**Example:** Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



#### 1 Press MENU.

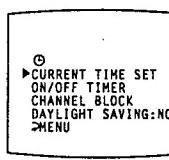
The main menu appears.



#### 2 Press A/V WINDOW +/- until the cursor points to "TIME."

#### 3 Press RETURN.

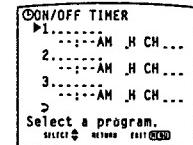
The time menu appears.



#### 4 Press A/V WINDOW +/- until the cursor points to "ON/OFF TIMER."

### 5 Press RETURN.

The ON/OFF TIMER screen appears, and the cursor points to "1."



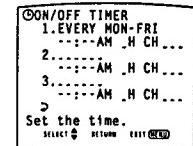
#### 6 To set program 1, press RETURN.

(To set program 2 or 3, press A/V WINDOW +/- until the cursor points to that program; then press RETURN.)

The day input space turns red.

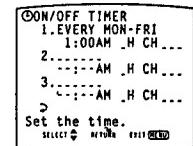
#### 7 Press A/V WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.

Each time you press A/V WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 61).



#### 8 Press A/V WINDOW +/- to select "1:00AM"; then press RETURN.

Each time you press A/V WINDOW +/-, the hour changes in sequence.

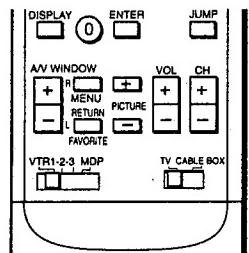


(Continued)

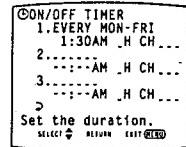
## Using Timer-Activated Functions

### Setting the ON-OFF TIMER (Cont'd from prev. page)

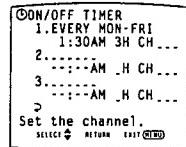
#### Remote Commander



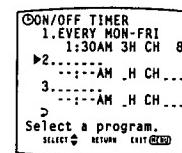
**9** Press A/V WINDOW +/- to select "30" (minutes); then press RETURN.  
Each time you press A/V WINDOW +/-, the minutes change in sequence.



**10** Press A/V WINDOW +/- to select "3" (hour duration); then press RETURN.  
Each time you press A/V WINDOW +/-, the duration changes from "1" - "6" in sequence.



**11** Press A/V WINDOW +/- to select "8" (channel); then press RETURN.  
The TIMER/STAND BY lamp lights, indicating that the setting is complete.  
Each time you press A/V WINDOW +/-, the channel number changes from 1 - 125 in sequence.



The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.  
Press RETURN and repeat steps 6 - 11.

To erase an ON/OFF TIMER setting  
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day.  
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

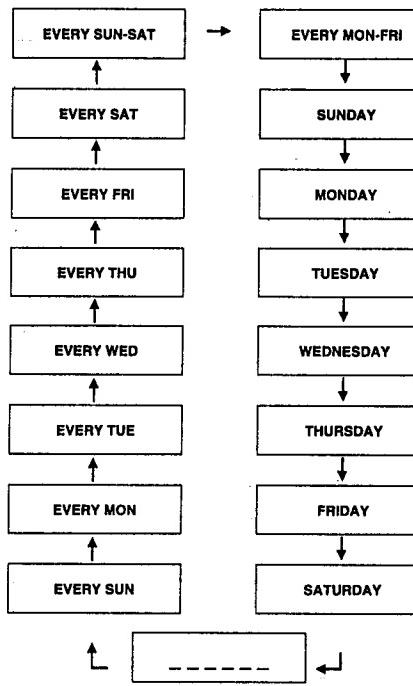
To return to the normal screen.  
Press MENU.

**Note**  
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

Fig. 1

#### Selecting the day(s) of the week

When you press A/V WINDOW +, the days of the week appear in the following order:



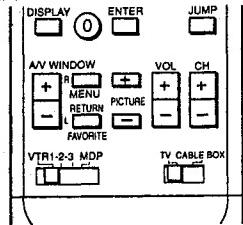
## Using Timer-Activated Functions

### Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

**Example:** Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

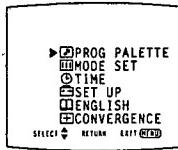
#### Remote Commander



**Note**  
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

#### 1 Press MENU.

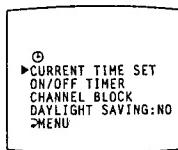
The main menu appears.



#### 2 Press A/V WINDOW +/- until the cursor points to "TIME."

#### 3 Press RETURN.

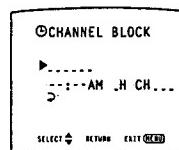
The time menu appears.



#### 4 Press A/V WINDOW +/- until the cursor points to "CHANNEL BLOCK."

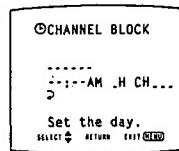
#### 5 Press RETURN.

The CHANNEL BLOCK screen appears, and the cursor points to the day input space.



#### 6 Press RETURN.

The day input space turns red.



#### 7 Press A/V WINDOW +/- to select "EVERY SAT"; then press RETURN.

Each time you press A/V WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 61).



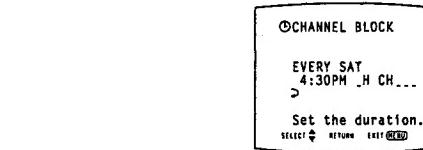
#### 8 Press A/V WINDOW +/- to select "4:00PM"; then press RETURN.

Each time you press A/V WINDOW +/-, the hour changes in sequence.



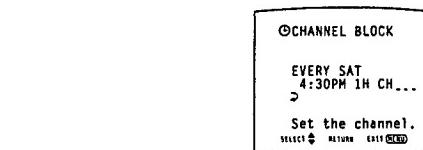
#### 9 Press A/V WINDOW +/- to select ":30" (minutes); then press RETURN.

Each time you press A/V WINDOW +/-, the minutes change in sequence.



#### 10 Press A/V WINDOW +/- to select "1" (hour duration); then press RETURN.

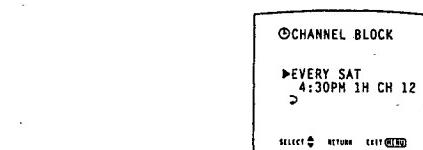
Each time you press A/V WINDOW +/-, the duration changes from "1" - "6" in sequence.



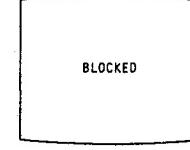
#### 11 Press A/V WINDOW +/- to select "12" (channel); then press RETURN.

The setting is complete.

Each time you press A/V WINDOW +/-, the channel number changes from "1" - "125" in sequence.



At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



### To erase a CHANNEL BLOCK setting

Display the CHANNEL BLOCK screen and select a blank space for the day.

The CHANNEL BLOCK setting is erased.

### To enter a new CHANNEL BLOCK setting

Display the CHANNEL BLOCK screen and repeat steps 4 - 10. (You can only set one CHANNEL BLOCK at a time.)

### To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "► MENU."

Then press RETURN.

### To return to the main menu

Repeat the above, until you reach the main menu.

### To return to the normal screen

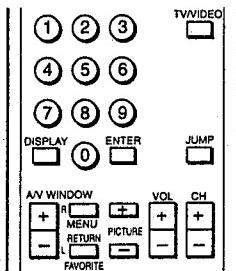
Press MENU.

**Note**  
If the ON/OFF TIMER is set for an overlapping time (pp. 59 - 61), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

# Setting FAVORITE CHANNEL

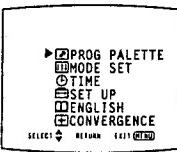
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN.

## Remote Commander



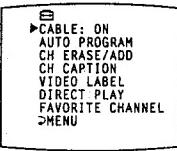
Follow these instructions to set the channels.

- 1** Press MENU.  
The main menu appears.



- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3** Press RETURN.  
The set up menu appears.



- 4** Press A/V WINDOW +/- until the cursor points to "FAVORITE CHANNEL."

- 5** Press RETURN.  
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.



- 6** Press A/V WINDOW +/- to select the channel position; then press RETURN.

- 7** Press 0 – 9 and ENTER to set the channel number.



- 8** Press RETURN.  
The setting is complete.

## To set other channels

Repeat steps 6 – 8.

**To erase a favorite channel setting**  
Press A/V WINDOW +/- until the cursor points to the channel number you want to erase; press RETURN, then press 0 and ENTER.

**To reset a favorite channel setting**  
Display the FAVORITE CHANNEL screen and repeat steps 6 – 8.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to "▷ MENU."  
Then press RETURN.

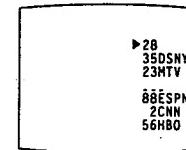
**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen.**  
Press MENU.

## Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

- 1** Press RETURN.  
The FAVORITE CHANNEL display appears.



**Note**  
If you have set channel captions (pp. 53 – 54), the captions appear with the channel numbers.

- 2** Press A/V WINDOW +/- to select the channel you want to watch; then press RETURN.  
The channel is selected.

If you press RETURN on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Follow steps 1 – 8 to set your favorite channels, and then make the selection.

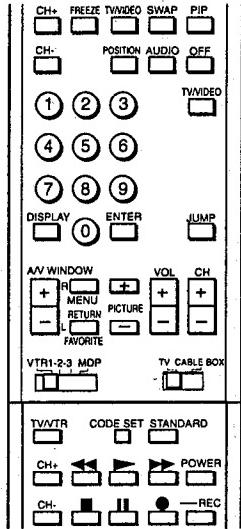
# Using the Pre-Programmed Remote Commander

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

## Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander  
(with video control cover open)



- 1** Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

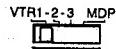


Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

- 2** Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)

To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/-.
To record	Press ● and REC simultaneously.
To play	Press ▶.
To stop	Press ■.
To fast forward	Press ▶▶.
To rewind the tape	Press ◀◀.
To pause	Press ■■.
To search the picture forward and backward	Keep pressing ▶▶ or ◀◀ during playback. <i>To resume normal playback, release the button.</i>
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)

To turn on or off	Press POWER.
To play	Press ▶.
To stop	Press ■.
To pause	Press ■■. <i>To resume normal playback, press again.</i>
To search the picture forward and backward	Keep pressing ▶▶ or ◀◀ during playback. <i>To resume normal playback, release the button.</i>

### Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 68 – 69), you must also set the Sony code to operate Sony equipment.

### Caution

When you replace the batteries, do so within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 68 – 70) may be erased.

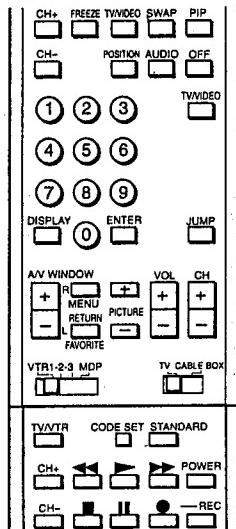
## Using the Pre-Programmed Remote Commander

### Operating non-Sony or Sony video equipment

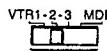
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

**Example:** Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

**Remote Commander**  
(with video control cover open)



**1** Set the VTR1-2-3 MDP selector to VTR2.



#### Note

To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

**2** While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 69.)



**3** Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 66 and Fig. 4 on p. 67.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

#### Note

In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

## Using the Pre-Programmed Remote Commander

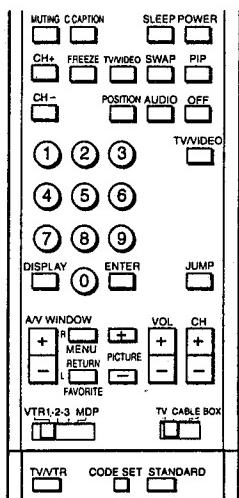


### Operating a cable converter box

Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

**Example:** Operate a connected Zenith cable converter box.

Remote Commander  
(with video control cover open)



**1** Set the TV/CABLE BOX selector to CABLE BOX.



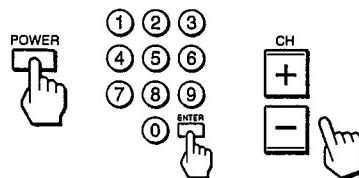
#### Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

**2** While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 8) and ENTER.



**3** Use the projection TV control buttons (POWER, 0 – 9, ENTER and CH +/-) to operate the cable converter box.



To return to the normal screen  
Set the TV/CABLE BOX selector to TV; then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box  
Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERRROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

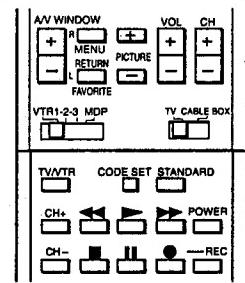
### Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ▶ (playback) button on the supplied Remote Commander.

**Example:** Connect your VCR to the VIDEO 2 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ▶, the input mode changes to the VCR connected to the VIDEO 2 IN jacks.

*After completing the steps below, the VTR selector position is retained in the projection TV's memory.*

Remote Commander (with video control cover open)



**1** Press MENU.  
The main menu appears.



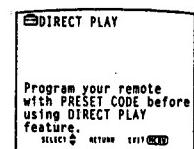
**2** Press A/V WINDOW +/- until the cursor points to "SET UP."

**3** Press RETURN.  
The set up menu appears.



**4** Press A/V WINDOW +/- until the cursor points to "DIRECT PLAY."

**5** Press RETURN.  
A message screen appears.



**Note**  
This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 68 – 69).

**6** Press RETURN again.  
The DIRECT PLAY screen appears.



**7** Press A/V WINDOW +/- until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1".)

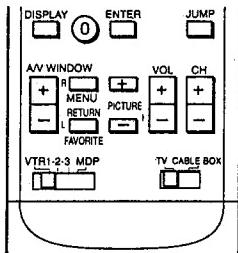
**8** Press RETURN.  
The mode display turns red.

(Continued)

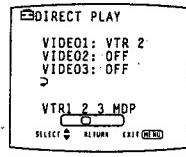
## Using the Pre-Programmed Remote Commander

### Selecting a VCR mode directly – DIRECT PLAY (Cont'd. from prev. page)

Remote Commander



**9** Press AV WINDOW +/- to select the VTR selector mode you have set on the Remote Commander.  
(When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")  
Each time you press AV WINDOW +/-, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



**10** Press RETURN.  
The direct play setting is complete.

To set direct play for other connected video equipment  
Repeat steps 7 – 10.

To return to the previous menu  
Press A/V WINDOW +/- until the cursor points to  
"▷ MENU."  
Then press RETURN.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU.

## Appendix Troubleshooting

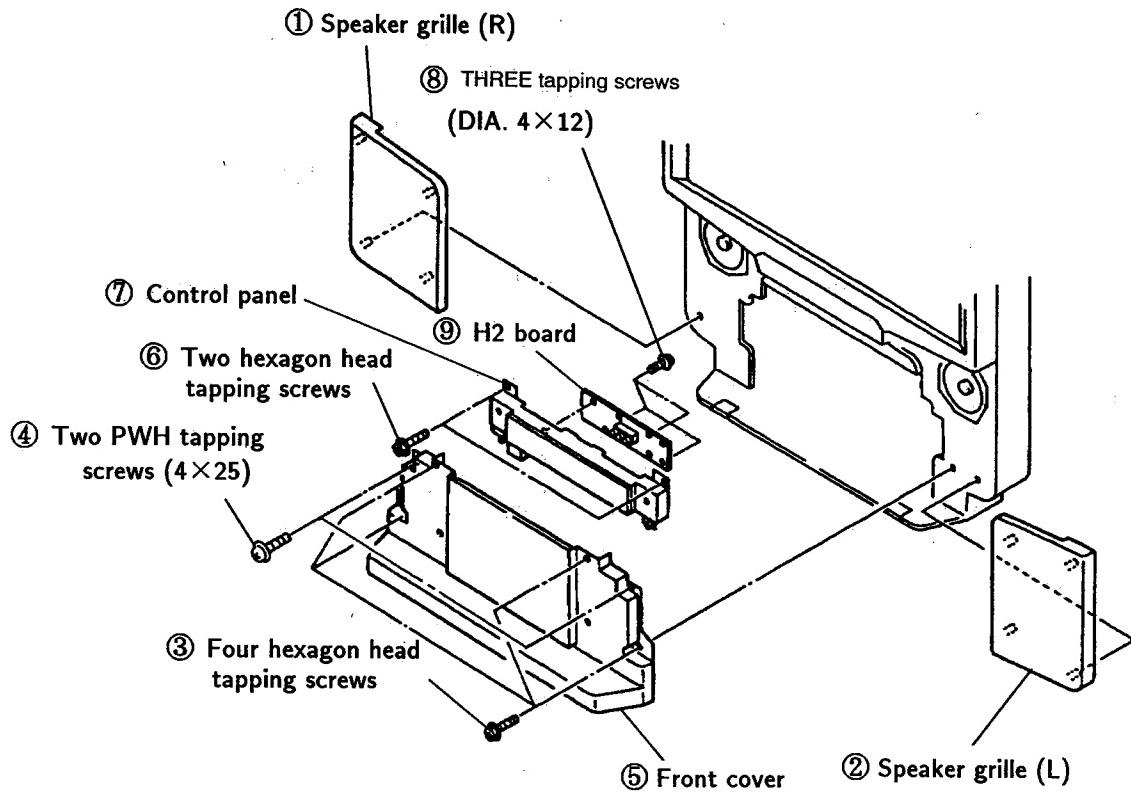
Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li>Make sure POWER is switched on.</li> <li>Check the power cord connection.</li> <li>Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure that the TV/CABLE BOX selector is set to TV.</li> </ul>
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> <li>Adjust the picture using the VIDEO screen (pp. 44 – 47).</li> <li>Check the antenna/cable connections.</li> <li>Adjust the color registration (pp. 24 – 25).</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>Press VOLUME + on the projection TV or VOL + on the Remote Commander.</li> <li>Press MUTING on the Remote Commander.</li> <li>Check the MTS setting (p. 51).</li> <li>Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure SPEAKER is set correctly (p. 52).</li> </ul>
No color for color programs	<ul style="list-style-type: none"> <li>Check the HUE and COLOR settings (pp. 44 – 45).</li> </ul>
Snow and noise only	<ul style="list-style-type: none"> <li>Check that it is an active or correct channel.</li> <li>Check the cable setting.</li> <li>Check antenna/cable connections.</li> </ul>
Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Remote control does not operate	<ul style="list-style-type: none"> <li>Check the battery in the Remote Commander.</li> </ul>
No picture and/or sound for the connected equipment	<ul style="list-style-type: none"> <li>Check that the TV/VIDEO button is set correctly.</li> <li>Check that the connections are properly made.</li> <li>Check that the power of the connected equipment is turned on.</li> <li>Check that the connected equipment is set correctly.</li> </ul>

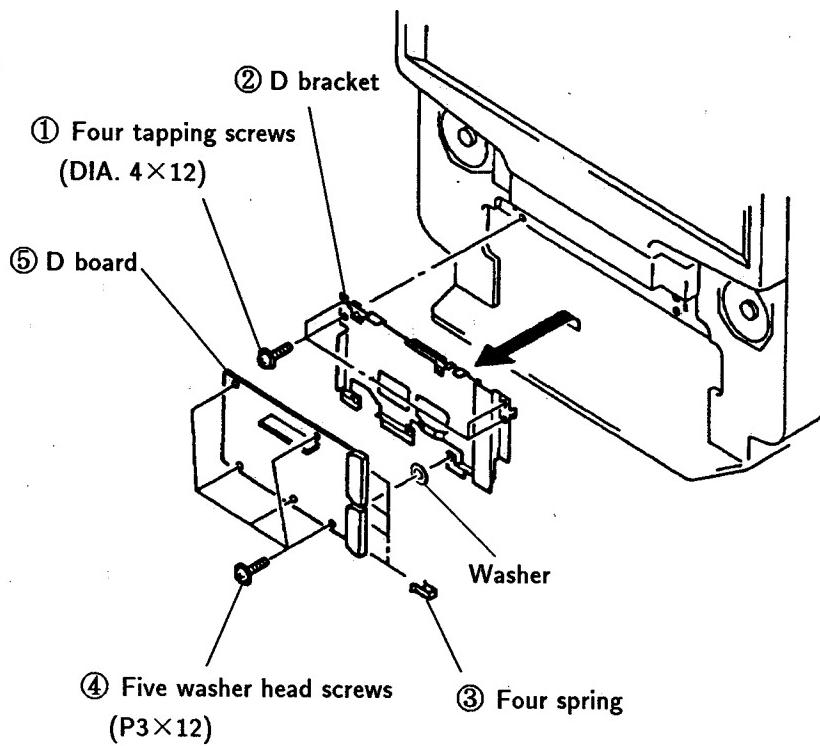
Try another channel. It could be station trouble.

## SECTION 2 DISASSEMBLY

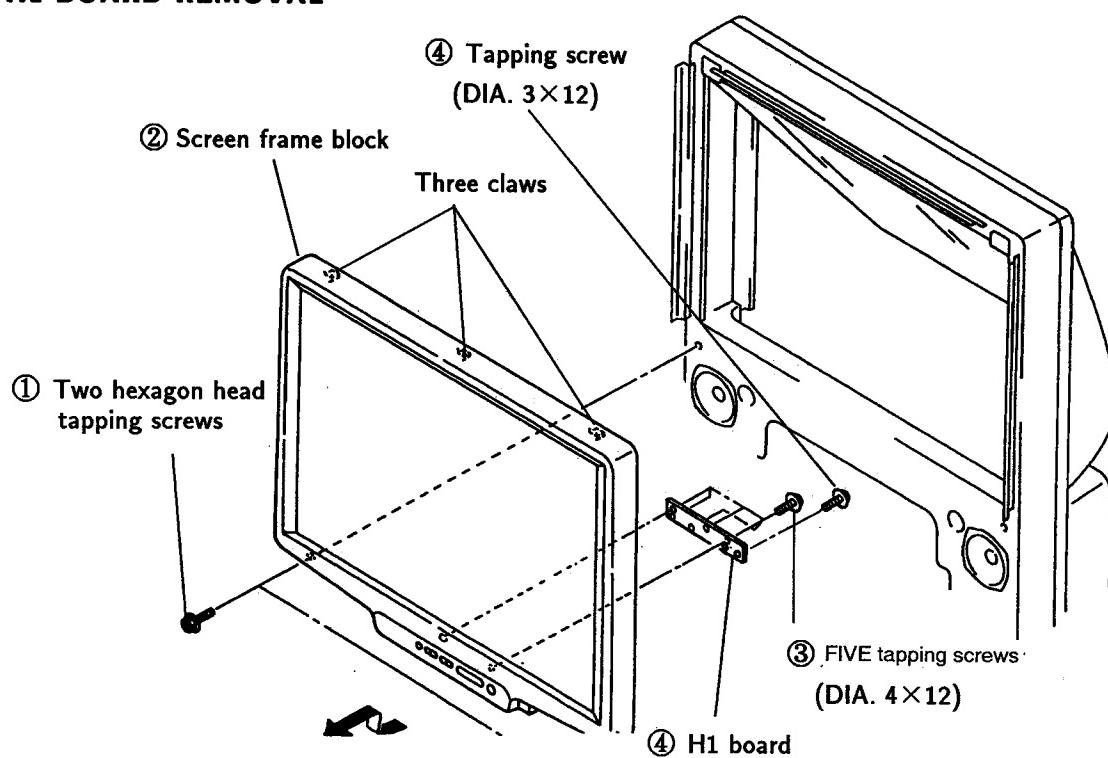
### 2-1. H2 BOARD REMOVAL



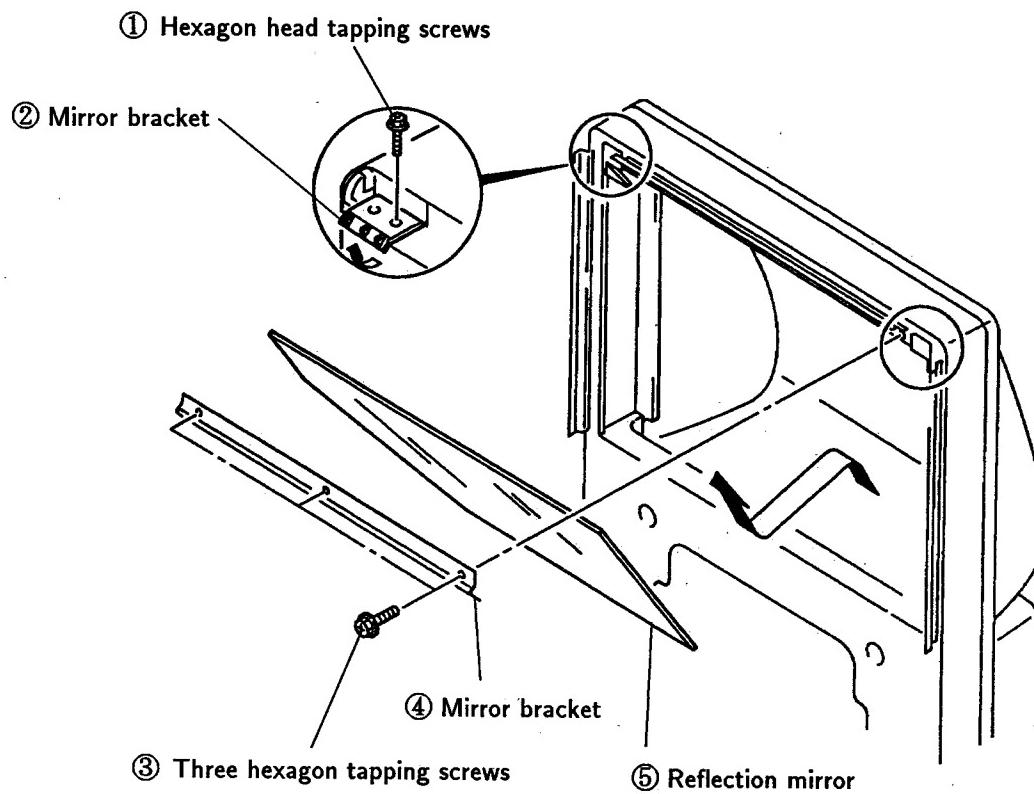
### 2-2. D BOARD REMOVAL



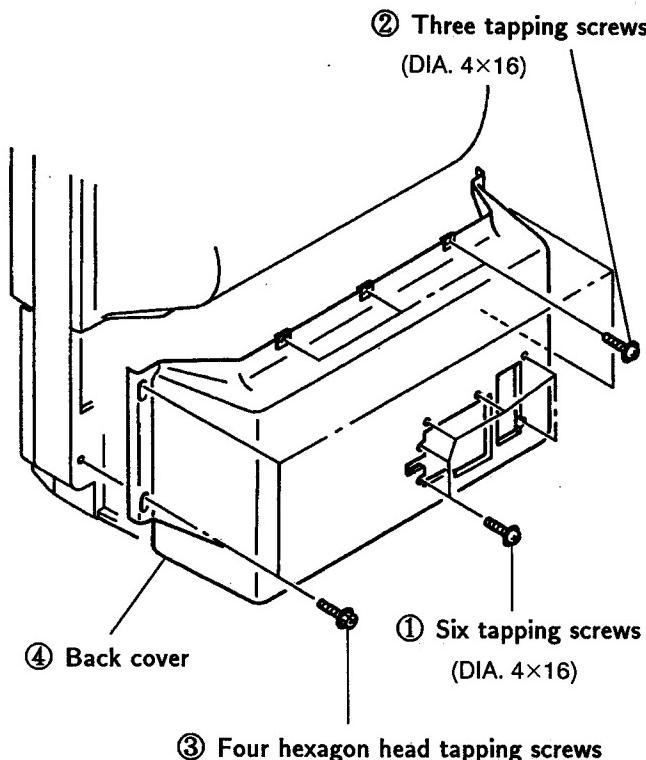
## 2-3. H1 BOARD REMOVAL



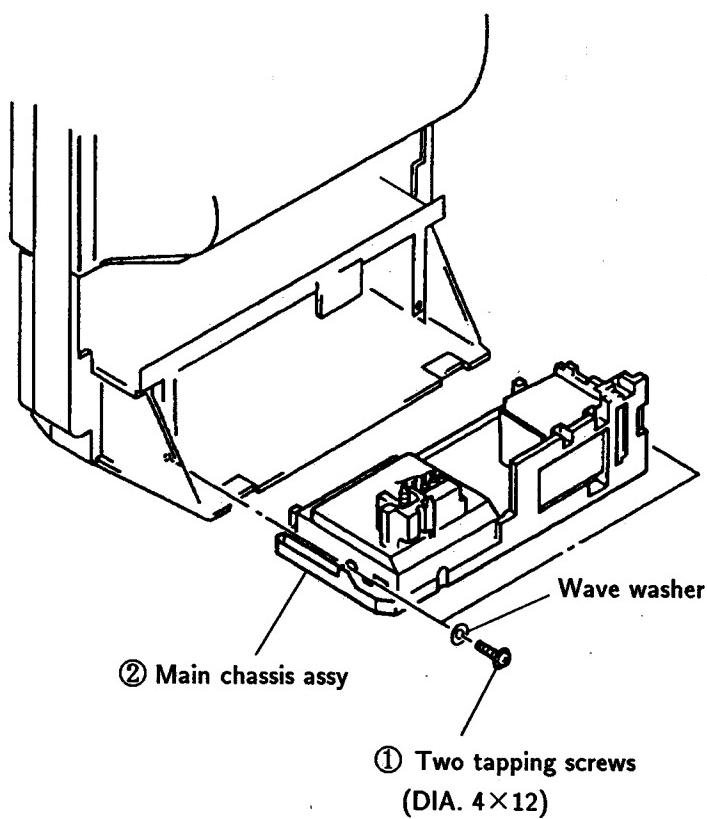
## 2-4. REFLECTION MIRROR REMOVAL



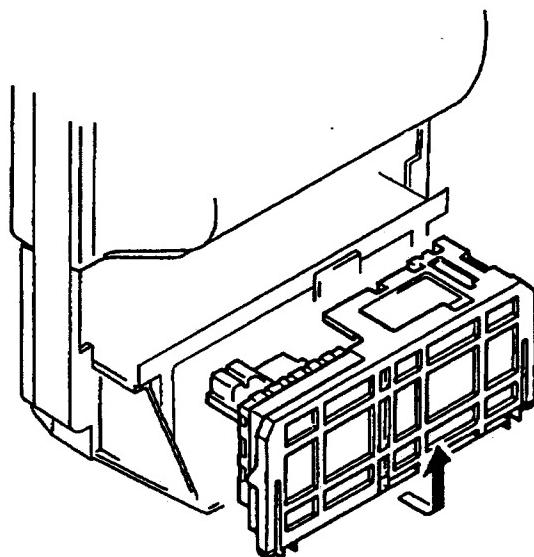
## 2-5. BACK COVER REMOVAL



## 2-6. MAIN CHASSIS ASSY REMOVAL



## 2-7. SERVICE POSITION



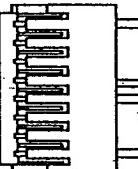
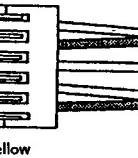
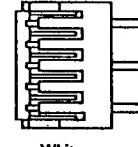
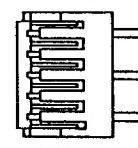
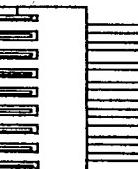
**NOTES INSERTED IN SERVICE POSITION**

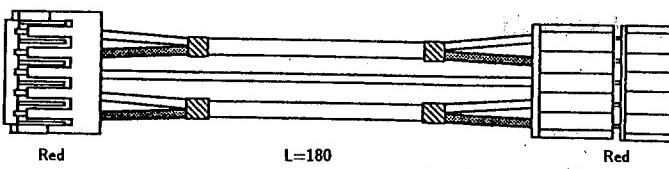
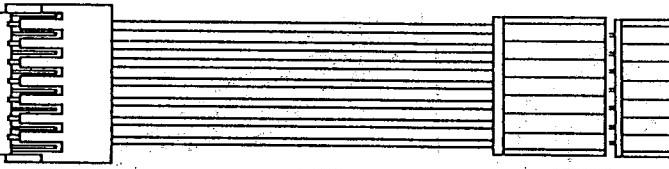
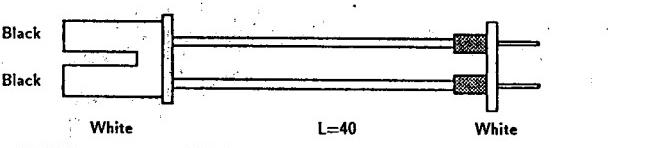
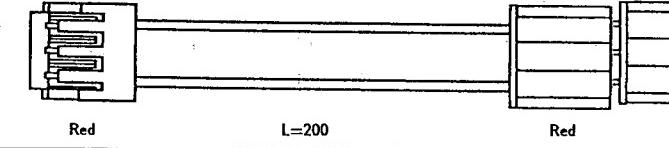
**Service Position Procedure**

- 1) Remove the path locks where the harness comes into.(MAIN bracket, G shield)
  - 2) Remove the following connectors before removing the main bracket.  
※ HV grounding lead, G shield grounding lead, V-2 connector(V board).
  - 3) Remove the main bracket.(Take care as the connector leads linking to the C and Z boards considerably short).
  - 4) Before power ON, be sure to connect the connectors removed.  
※ HV grounding lead, G shield grounding lead.
- In case that grounding lead(Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.
- Be sure to connect grounding lead of HV Block with chassis grounding.

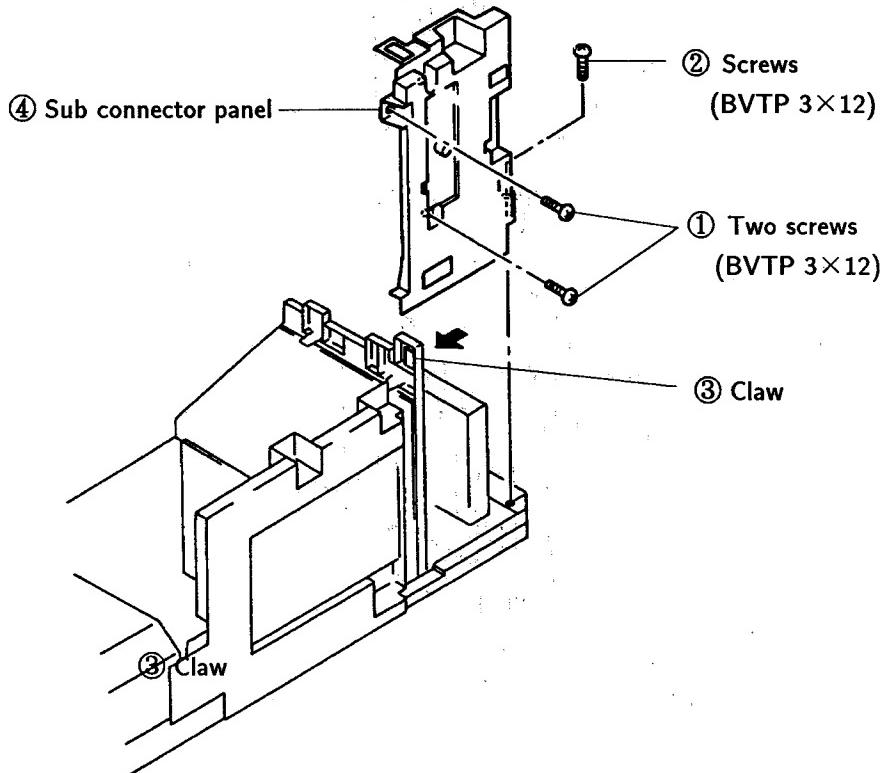
**CONNECTOR CABLES**

※ In order to put the set in the service position, use the extension connector cables below.

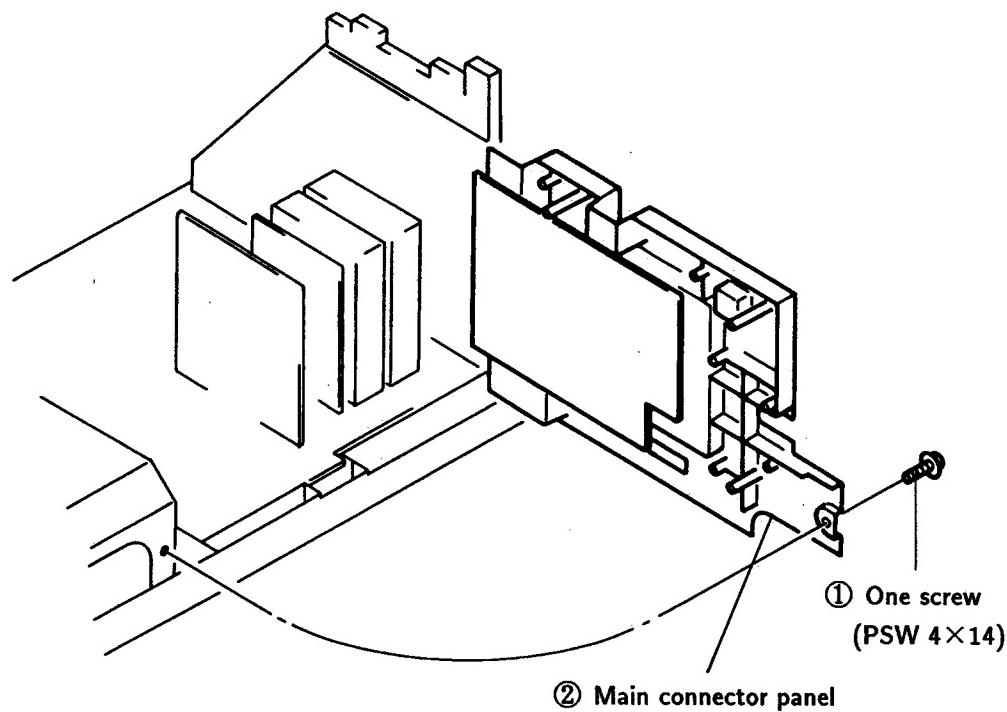
Parts No.	Connection
1-941-897-38	CB-4toCN1652(G BOARD)
	 1 : Brown 2 : - 3 : - 4 : Yellow 5 : Green 6 : - 7 : - 8 : Gray
	White                    L=140                    White
Parts No.	Connection
1-941-897-39	CG-16toCN1608(A BOARD)
	 1 : White/Gray 2 : Gray/Shield 3 : Orange 4 : Red/Gray 5 : Gray/Shield
	Yellow                    L=110                    Yellow
Parts No.	Connection
1-941-897-40	ZG-19toCN1308(DO BOARD)
	 1 : Green 2 : - 3 : Black 4 : - 5 : Brown
	White                    L=150                    White
Parts No.	Connection
1-941-897-41	ZR-18toCN1306(DO BOARD)
	 1 : Red 2 : - 3 : Black 4 : - 5 : Brown
	White                    L=150                    White
Parts No.	Connection
1-941-897-42	ZG-2toD-2
	 1 : - 2 : Red 3 : Orange 4 : Yellow 5 : Green 6 : Blue 7 : Violet 8 : Gray
	White                    L=130                    White

Parts No.	Connection	
1-941-897-43	CR-15toCN1609(A BOARD)	
1 : White/Gray 2 : Gray/Shield 3 : Orange 4 : Red/Gray 5 : Gray/Shield		
Red	L=180	Red
Parts No.	Connection	
1-941-897-44	ZR-1toD-1	
1 : Brown 2 : Red 3 : Orange 4 : Yellow 5 : Green 6 : Blue 7 : Violet		
White	L=150	White
Parts No.	Connection	
1-941-897-45	A-21toCRT BRACKET	
1 : Black 2 : Black		
White	L=40	White
Parts No.	Connection	
1-941-897-46	V-2toZR-3	
1 : Brown 2 : — 3 : Red		
Red	L=200	Red

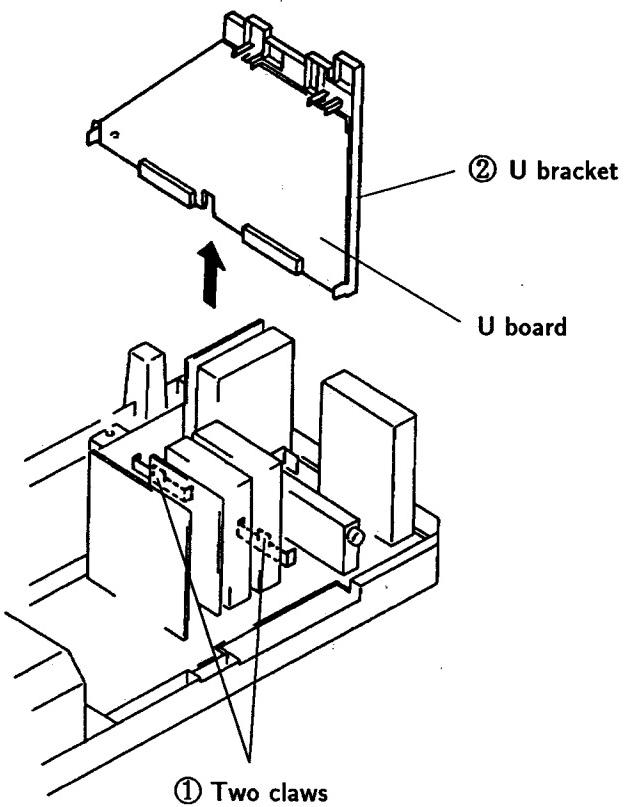
## 2-8. SUB CONNECTOR PANEL REMOVAL



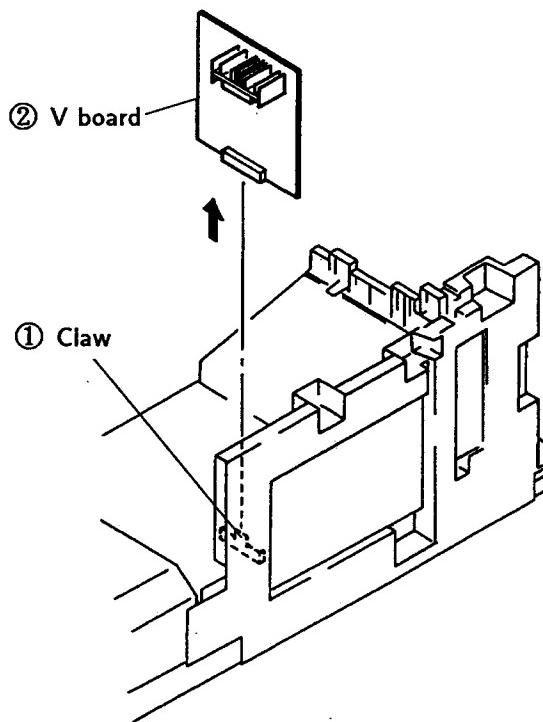
## 2-9. MAIN CONNECTOR PANEL REMOVAL



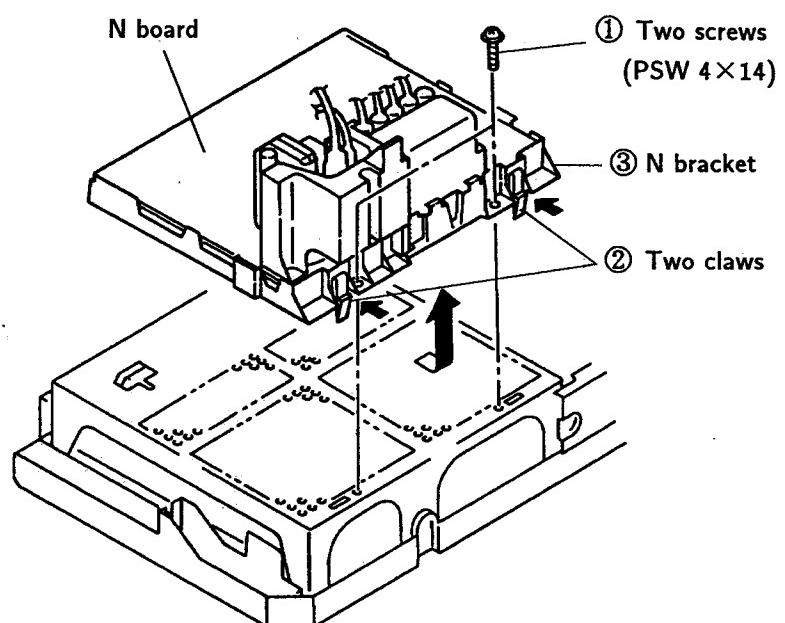
## 2-10. U BRACKET REMOVAL



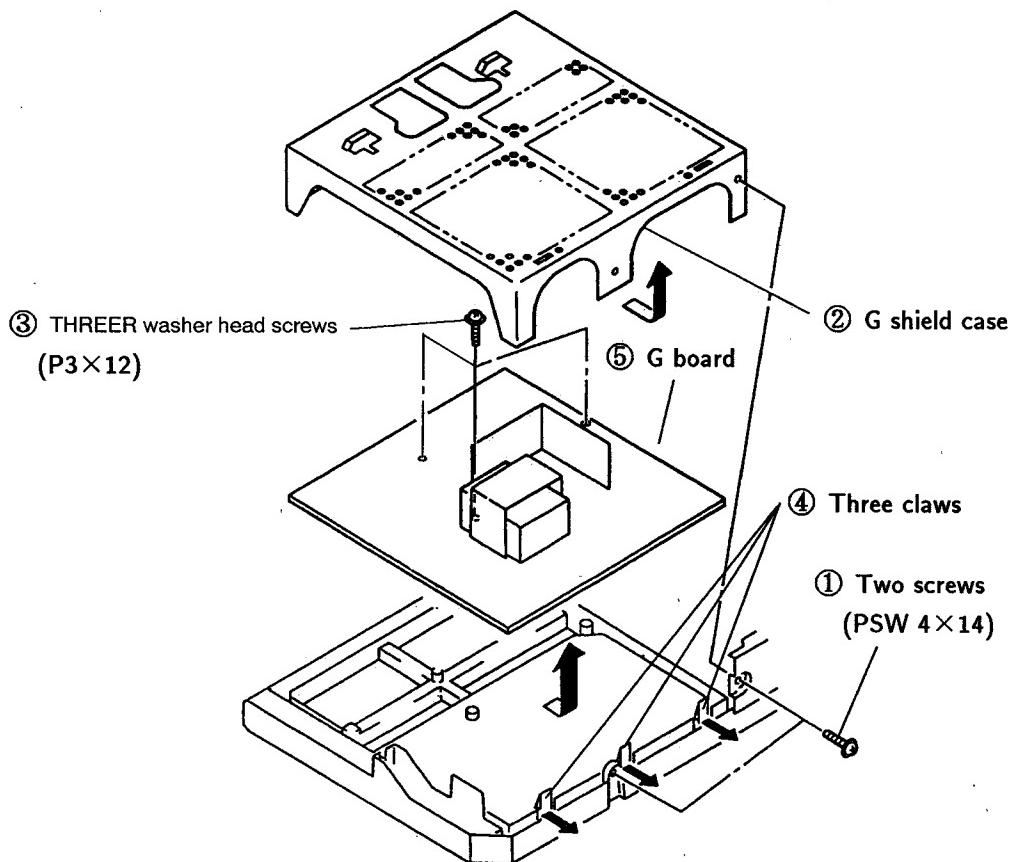
## 2-11. V BOARD REMOVAL



## 2-12. N BRACKET REMOVAL

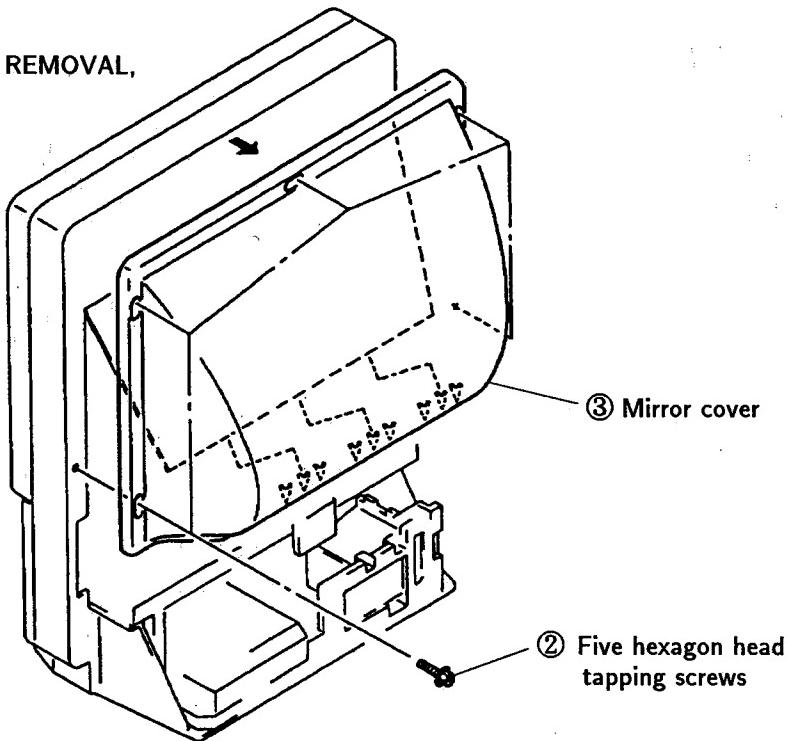


## 2-13. G BOARD REMOVAL

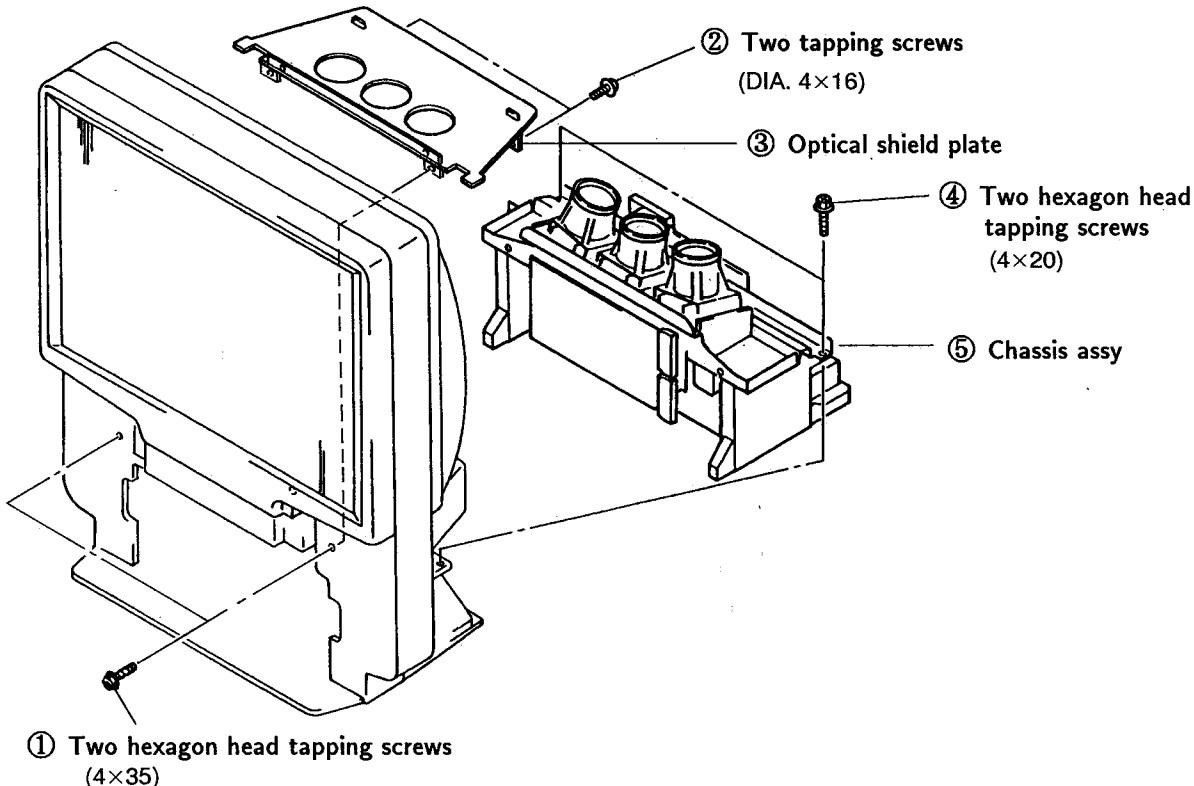


## 2-14. MIRROR COVER REMOVAL

- ① 2-1 H2 BOARD REMOVAL,
- 2-3 H1 BOARD REMOVAL,
- 2-4 REFLECTION MIRROR REMOVAL,

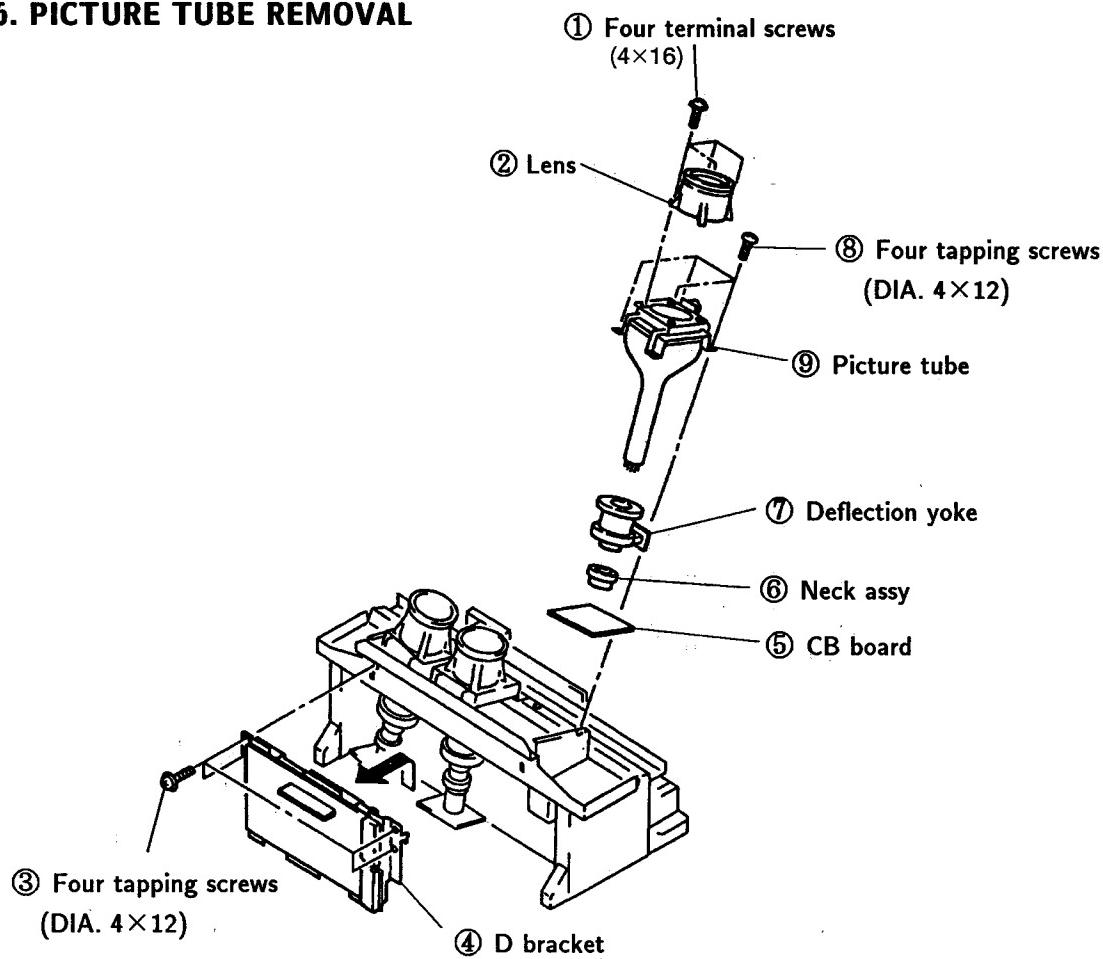


## 2-15. CHASSIS ASSY REMOVAL



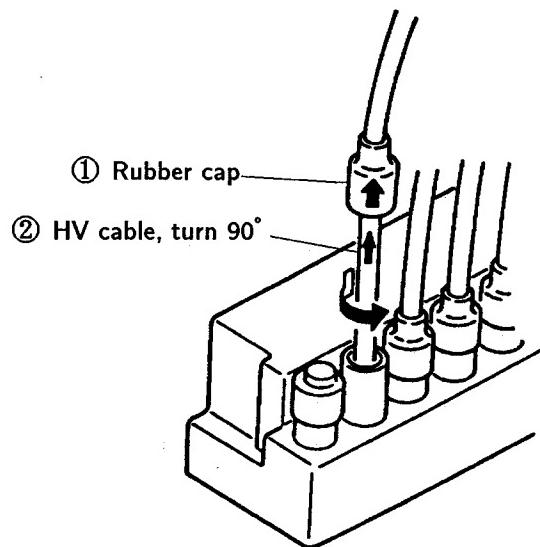
① Two hexagon head tapping screws  
(4×35)

## 2-16. PICTURE TUBE REMOVAL

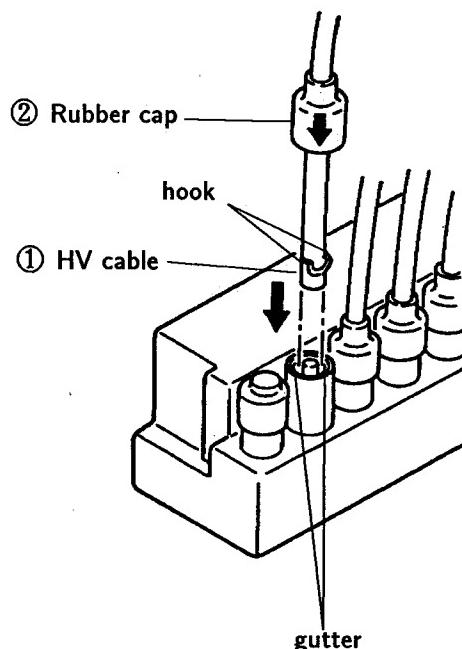


## 2-17. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

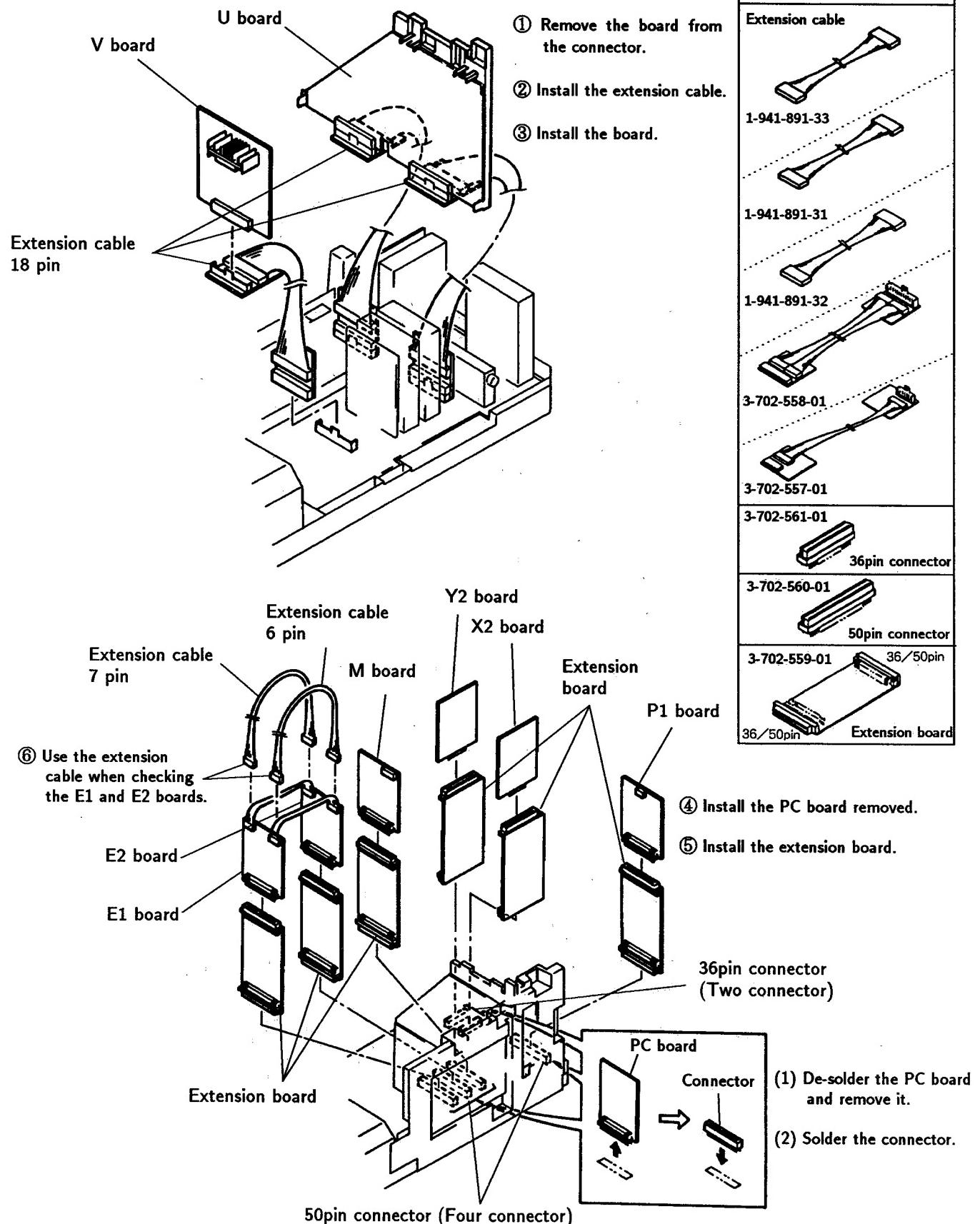
(1) Remover



(2) Installation



## 2-18. CONNECTOR CABLE

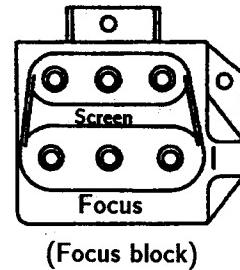
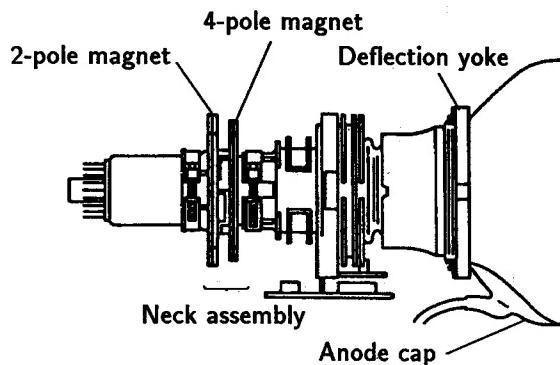


## SECTION 3

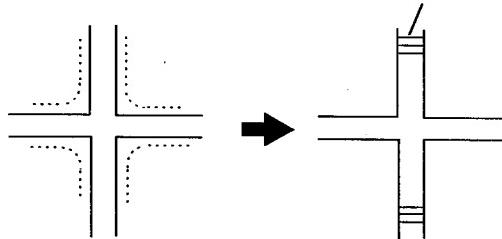
### SET-UP ADJUSTMENTS

#### 3-1. FOCUS LENS ADJUSTMENTS

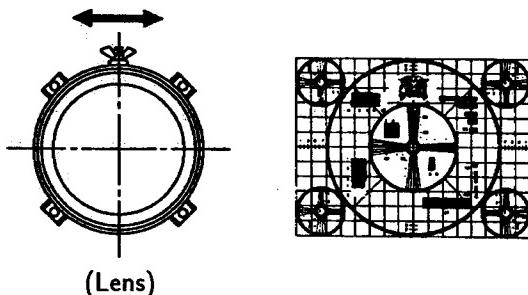
1. Set the D-board registration variable resistors (VR) to mechanical center.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.



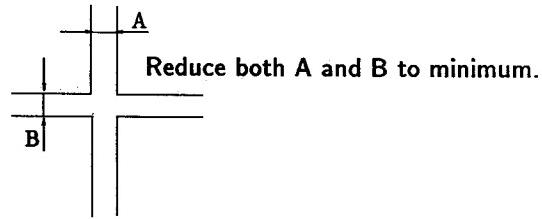
Verify that scanning lines are seen.



3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous using the screen VRs.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



8. Repeat above 6 and 7. Couple of times to improve tracking and obtain an optimum focus. Then tighten the green lens screw.
9. Adjust the red and blue focuses similarly.

#### 3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

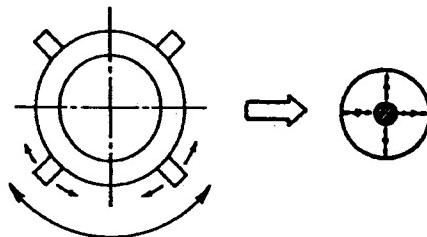
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

### 3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise from the just focus to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.

\* Use the center dot:red and green

Use the vertical center and left end dot:blue

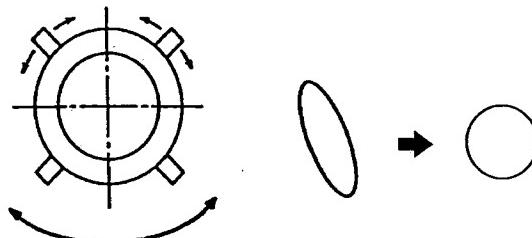


### 3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise (counter clockwise : blue) from the just focus until the dot diameter becomes as shown below.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Turn the green focus variable resistor to the just focus.
6. Adjust the red and blue dot in the same way.

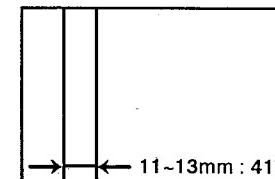
\* Use the center dot : red and green

Use the vertical center and left end dot:blue



### 3-5. DE-FOCUS ADJUSTMENT (BLUE)

1. Input cross hatch signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the width of the left end vertical line becomes as shown below.

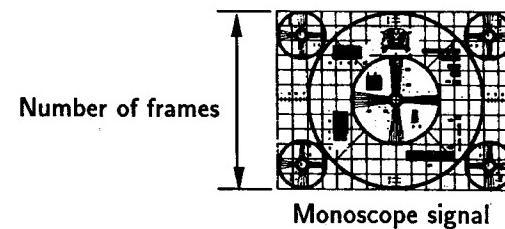


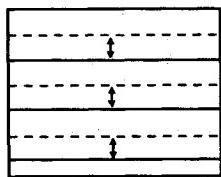
without flare

### 3-6. GREEN PICTURE ADJUSTMENTS

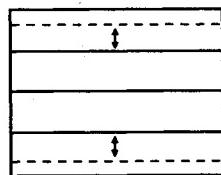
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.  
Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitude variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 frames.

Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.

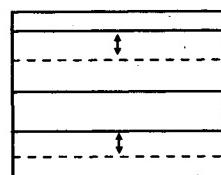




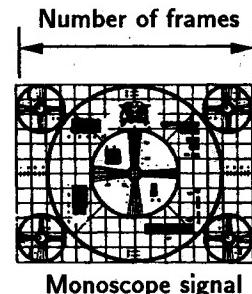
**RV905 V.G CENT**  
(vertical position)



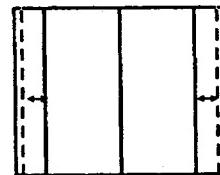
**RV911 V.G SIZE**  
(vertical amplitude)



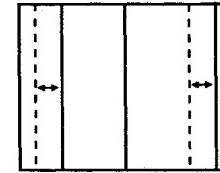
**RV913 V.G LIN**  
(vertical linearity)



Monoscope signal

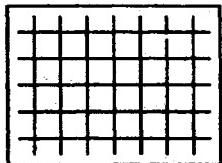


**RV908 H.G SIZE**  
(horizontal position)



**RV916 H.G LIN**  
(horizontal linearity)

5. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



6. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.

Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.

Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.

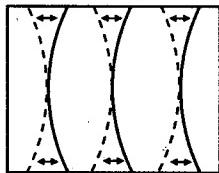
7. Input cross hatch signal.

Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

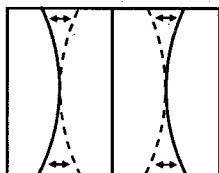
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position) ]
2. [PIN (pin warp) ] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid) ] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp) ] →  
[WAVE-A (upper and lower sine wave warp) ] →  
[WAVE-U (upper sine wave warp) ]  
※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp) ] →  
[V/WING (vertical wing warp) ]  
※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp) ]  
※ For horizontal (H) only.

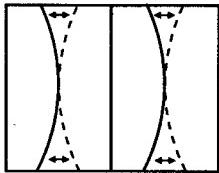
(Dot motion)



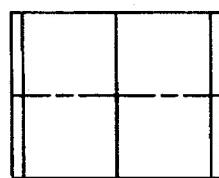
RV932 H.G BOW  
(horizontal green bow)



RV941 H.G PIN  
(horizontal green pin warp)



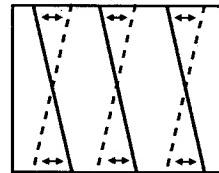
RV950 H.G SUB BOW  
(horizontal green sub bow)



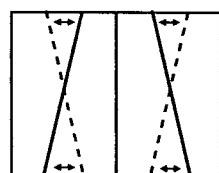
V.G BOW.....RV935

V.G PIN.....RV938

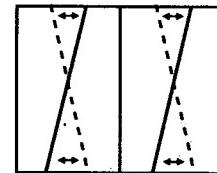
V.G SUB BOW.....RV953



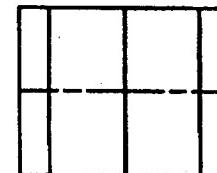
RV920 H.G SKEW  
(horizontal green skew)



RV925 H.G KEYS  
(horizontal green trapezoid)



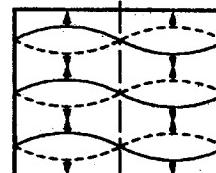
RV944 H.G SUB SKEW  
(horizontal green sub skew)



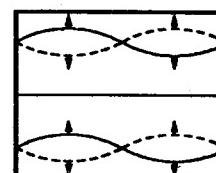
V.G SKEW.....RV923

V.G KEYS.....RV929

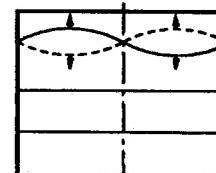
V.G SUB SKEW.....RV947



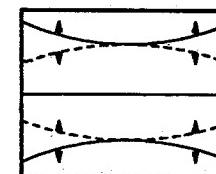
RV962 V-M-WAVE  
(vertical middle sine wave warp)



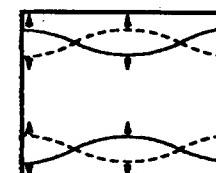
RV975 V-WAVE-A  
(vertical upper and lower sine wave warp)



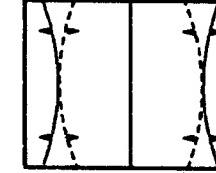
RV978 V-WAVE-U  
(vertical upper sine wave warp)



RV980 V-M. PIN  
(vertical middle pin warp)  
※ Common in red, green, and blue



RV957 V/WING  
(wing warp)  
※ Common in red, green, and blue



RV956 H/M. PIN  
(horizontal middle pin warp)

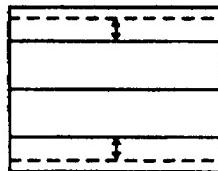
### 3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H.R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

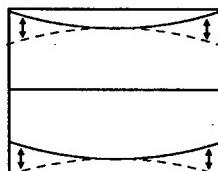
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)]
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW]  
[H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] →  
[WAVE-A (upper and lower sine wave warp)] →  
[WAVE-U (upper sine wave warp)]

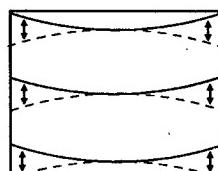
(Dot motion)



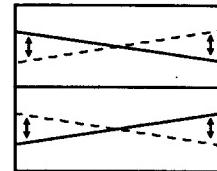
RV912 V.B SIZE  
(vertical red amplitude)



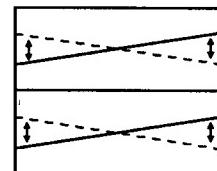
RV952 V.R SUB BOW  
(vertical red sub bow)



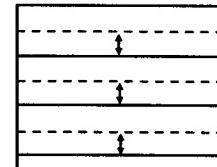
RV943 V.R BOW  
(vertical red bow)



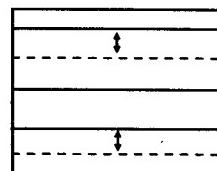
RV928 V.R KEYS  
(vertical red trapezoid)



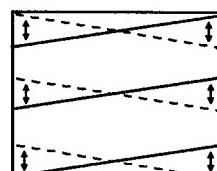
RV946 V.R SUB SKEW  
(vertical red sub skew)



RV904 V.R CENT  
(vertical red center position)



RV917 V.R LIN  
(vertical red linearity)



RV922 V.R SKEW  
(vertical red skew)

H.R LIN.....	RV915
H.R SIZE.....	RV907
H.R CENT.....	RV901
H.R BOW.....	RV931
H.R SKEW.....	RV919
H.R PIN.....	RV940
H.R KEYS.....	RV926
H.R SUB BOW.....	RV949
H.R SUB SKEW.....	RV943
V-M-WAVE.....	RV973
V-WAVE-A.....	RV976
V-WAVE-U.....	RV979
V-M.PIN.....	RV980
V/WING.....	RV957
H/M.PIN.....	RV956

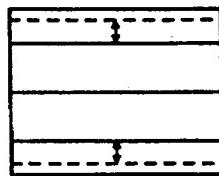
### 3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

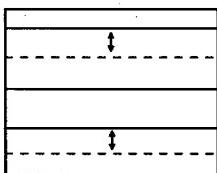
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW]  
[H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] →  
[WAVE-A (upper and lower sine wave warp)] →  
[WAVE-U (upper sine wave warp)] →

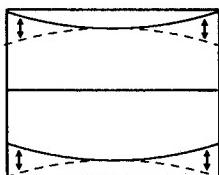
(Dot motion)



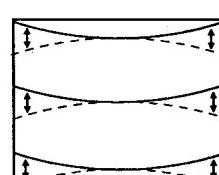
RV912 V.B SIZE  
(vertical blue amplitude)



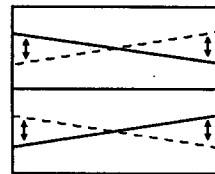
RV918 V.B LIN  
(vertical blue linearity)



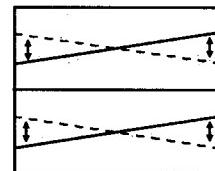
RV954 V.B SUB BOW  
(horizontal blue sub bow)



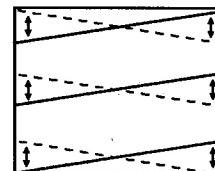
RV936 V.B BOW  
(vertical blue bow)



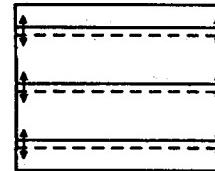
RV930 V.B KEYS  
(vertical blue trapezoid)



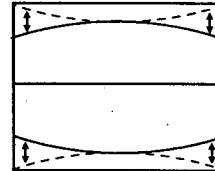
RV948 V.B SUB SKEW  
(vertical blue sub skew)



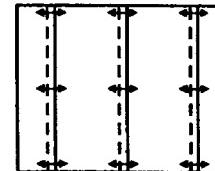
RV924 V.B SKEW  
(vertical blue skew)



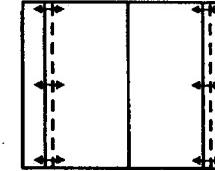
RV906 V.B CENT  
(vertical blue center position)



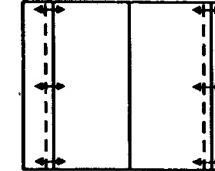
RV939 V.B PIN  
(vertical blue pin warp)



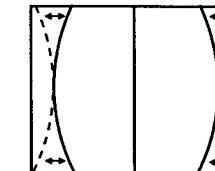
RV903 H.B CENT  
(vertical blue center position)



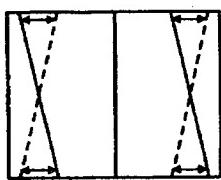
RV909 H.B SIZE  
(horizontal blue amplitude)



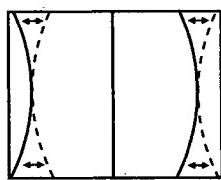
RV914 H.B LIN  
(horizontal blue linearity)



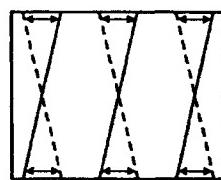
RV942 H.B PIN  
(horizontal blue pin warp)



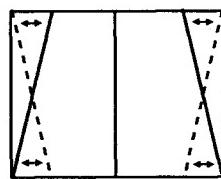
RV954 H.B SUB SKEW  
(horizontal blue sub skew)



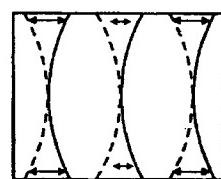
RV951 H.B SUB BOW  
(horizontal blue sub bow)



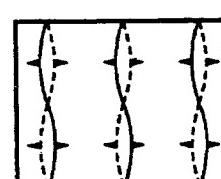
RV921 H.B SKEW  
(horizontal blue skew)



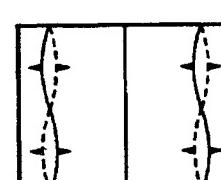
RV927 H.B KEYS  
(horizontal blue trapezoid)



RV933 H.B BOW  
(horizontal blue bow)



RV981  
※ Common in red,  
green, and blue



RV982  
※ Common in red,  
green, and blue



H/M PIN.....RV958

M.WAVE.....RV961

WAVE-A.....RV974

WAVE-U.....RV977

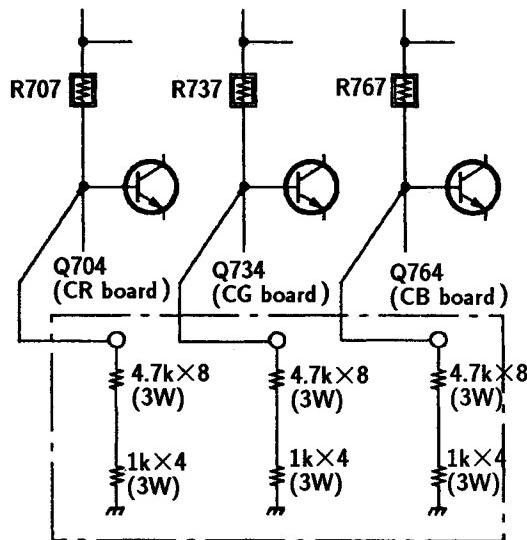
### 3-9. REGISTRATION CHECK

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

### 3-10. WHITE BALANCE ADJUSTMENTS

#### 1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.



※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

**2) White balance adjustments (SBRT, GAMP, BAMP,  
GCUT, BCUT)**

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

## SECTION 4

### SAFETY RELATED ADJUSTMENTS

#### 4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

- ..... HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

- ..... HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

- ..... ① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881
- ② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

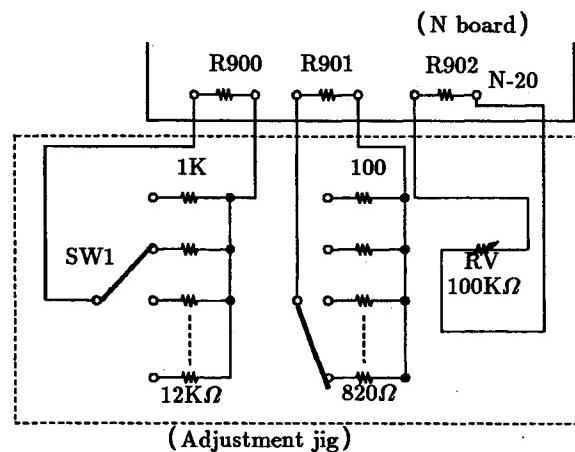
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

- ..... Q618, Q621, D628, C634, R639, R649, R652, R655, R656

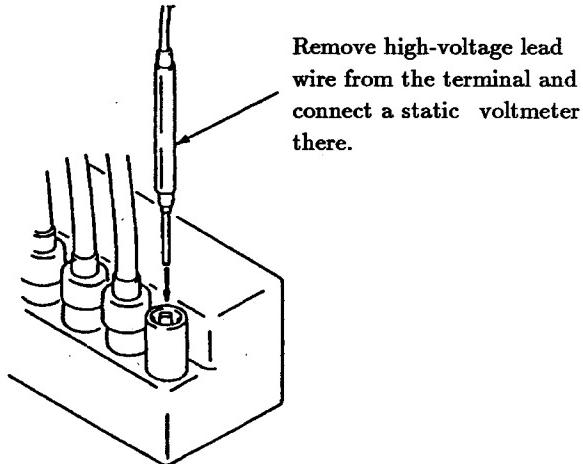
#### — Checking with static voltmeter —

##### **HV HOLD DOWN ADJUSTMENTS (█R900, R901)**

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N20 connector on the N board.



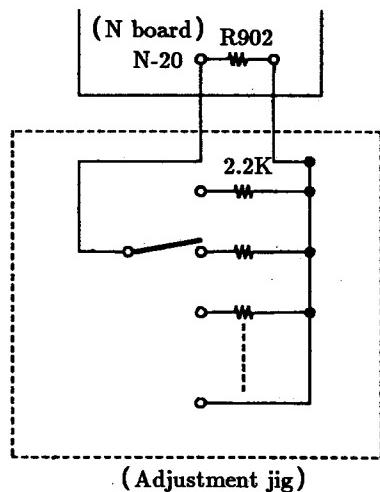
3. Connect an external variable resistor (RV) to R902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.



5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read  $33.50 \pm 0.50\text{kVDC}$ .
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.  
R900 : Must be  $1\text{k}\Omega$  to  $12\text{k}\Omega$   
R901 : Must be  $J_w 100\Omega$  to  $820\Omega$
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the reated value,  $33.50 \pm 0.50\text{kV}$ .

**HV REGULATOR ADJUSTMENTS (█R902)**

1. Connect the HV adjustment resistance jig to R902 of the N board.



2. Remove the red anode lead wire for the CRT tube from the high-voltage block and connect the static voltmeter instead.
3. Receive 120 VAC power voltage and monoscope pattern signal. Set PICTURE and BRIGHTNESS to the standard.
4. Turn on power. To adjust the resistance of R902 with the adjustment jig to read the rated value,  $31.50 \pm 0.50\text{kV}$ .
5. Receive all-white signal. Set BRIGHTNESS to the standard. Maximize PICTURE. Confirm that the rated value,  $31.50 \pm 0.50\text{kV}$  is read.
6. Cut off RGB by R OFF, G OFF, B OFF of the service commander. Verify that the rated value,  $31.50 \pm 0.50\text{kV}$ , is read.

**+B VOLTAGE CONFIRMATION**

1. Receive  $120 \pm 1$  VAC power voltage and monoscope pattern signal. Set BRIGHTNESS to standard and maximize PICTURE.
2. Connect a digital multimeter between the 115V line and the ground on the G board, and confirm that the rated value,  $115.0 \pm 3\text{V}$  is read.

**CHECKING AFTER REPLACING IC601**

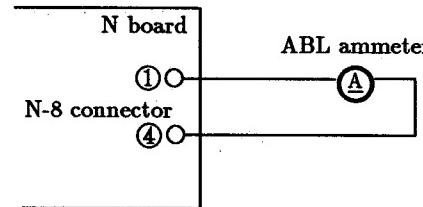
1. When replacing IC601, check the +B voltage.

**CHECKING THE OVP (overvoltage protection) CIRCUIT (█R652)**

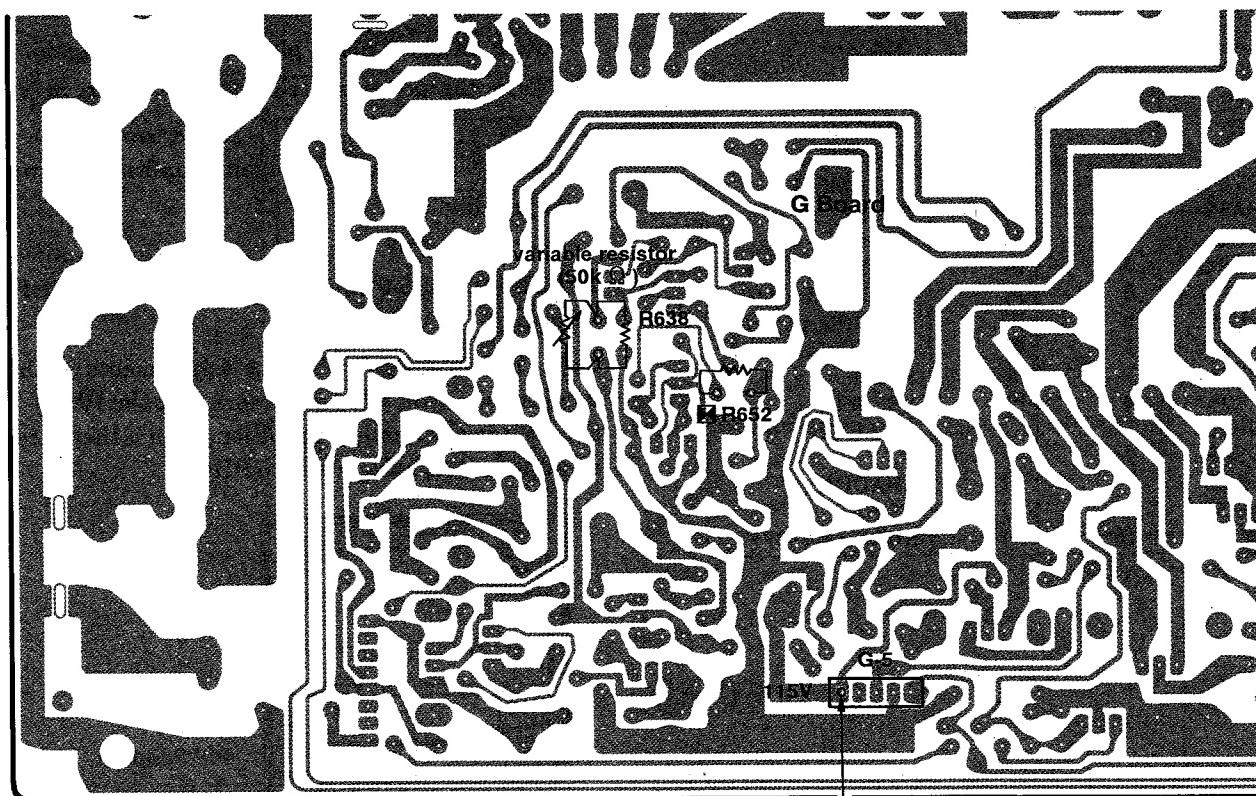
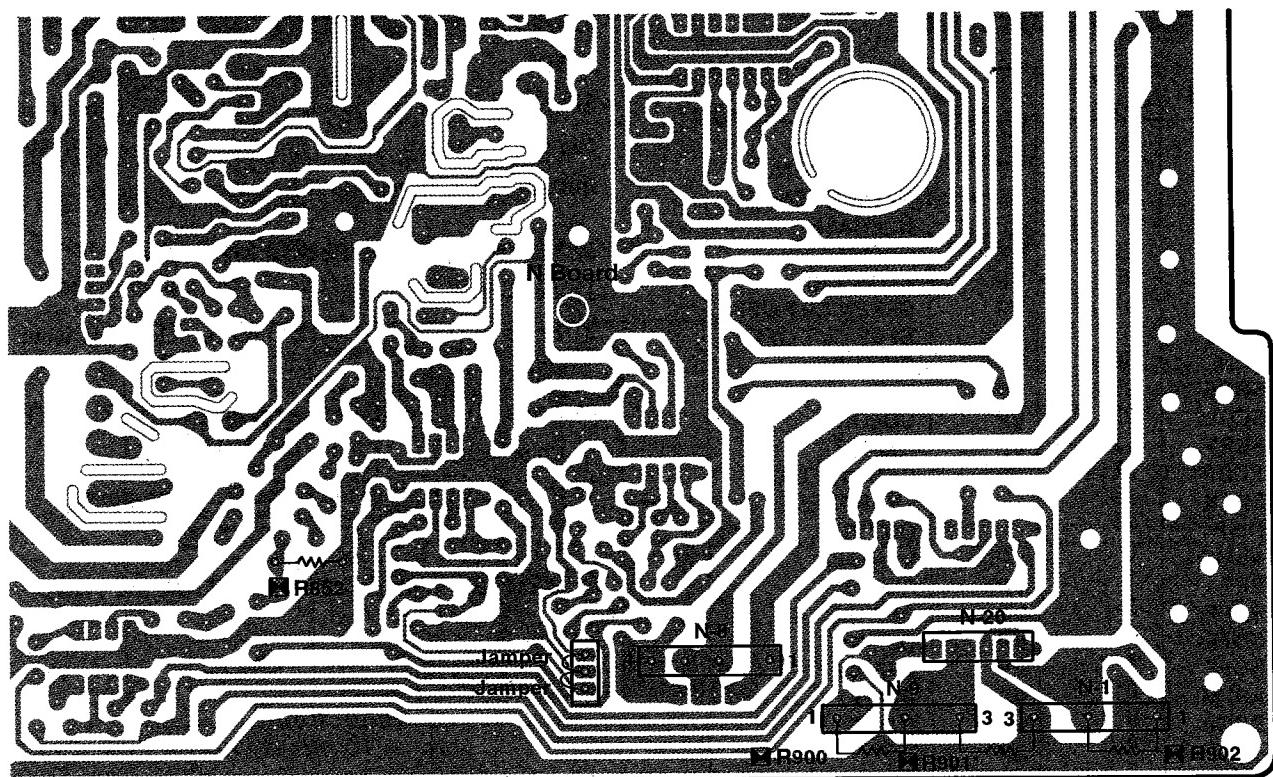
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R638 from the G board and connect a variable resistor (4.7 to  $10\text{k}\Omega$ ) instead.
3. Turn the variable resistor of  $10\text{k}\Omega$  and confirm that the OVP circuit is activated and luster disappears when +B voltage reads the rated value,  $125.0 \pm 5.0$  VDC.

**BEAM CURRENT PROTECTOR CHECK (█R852)**

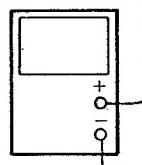
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize BRIGHTNESS.
2. Connect pin① and pin② of the N-21 connector. (on the N board)
3. Remove the jumper connector from the N-8 connector on the N board. Then connect an ABL ammeter between pin ① and pin ④ of the N-8 connector.



4. Raise PICTURE current gradually. Confirm that the beam current protector circuit is activated and luster disappears under the rated value,  $3400 \mu\text{A}$ .
5. Connect pin③ and pin② of the N-21 connector. Verify that the protector circuit is activated and luster disappears similarly.



digital multi-meter



— Checking without static voltmeter —

**HV HOLD DOWN ADJUSTMENT (R900, R901)**

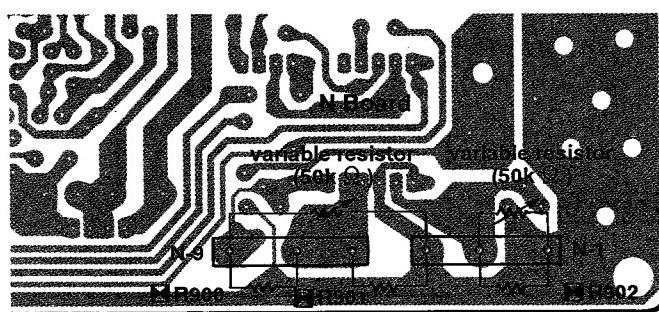
1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of  $50k\Omega$  on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of  $50k\Omega$  on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.

Note : Select fixed resistance from the following ranges.

R900 :  $1k\Omega$  to  $12k\Omega$

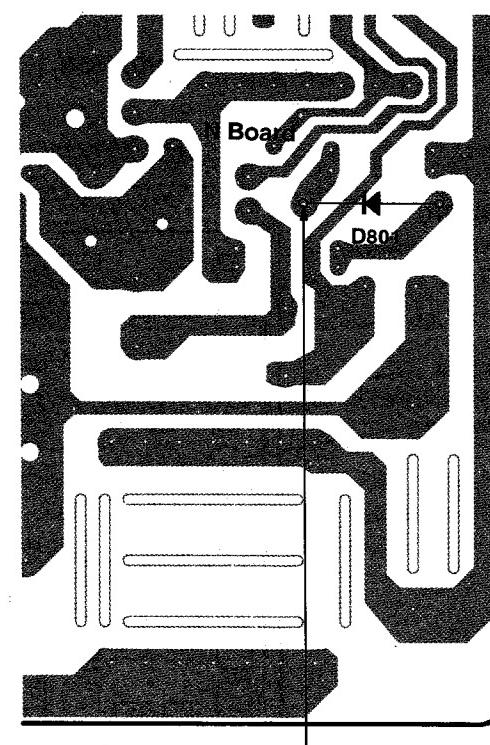
R901 :  $J_w 100\Omega$  to  $820\Omega$

8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads  $134 \pm 1.0V$ .

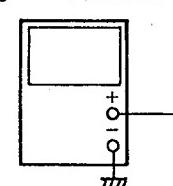


**HV REGULATOR ADJUSTMENT (R902)**

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
  2. Connect a variable resistor of  $50k\Omega$  on each end of R902 of the N board. Maximize resistance.
  3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
  4. Turn on power. Adjust the variable resistor so that the digital multimeter reads  $135.0V \pm 1.0V$ .
  5. Read the variable resistance then.
  6. Mount a fixed resistor of the measured resistance to R902.
- Note : R902 : Must be  $2.2k\Omega$  to  $27k\Omega$
7. Turn on power again. Confirm that the digital multimeter reads  $135.0V \pm 1.0V$ .



digital multi-meter



## SECTION 5

### CIRCUIT ADJUSTMENTS

#### 5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

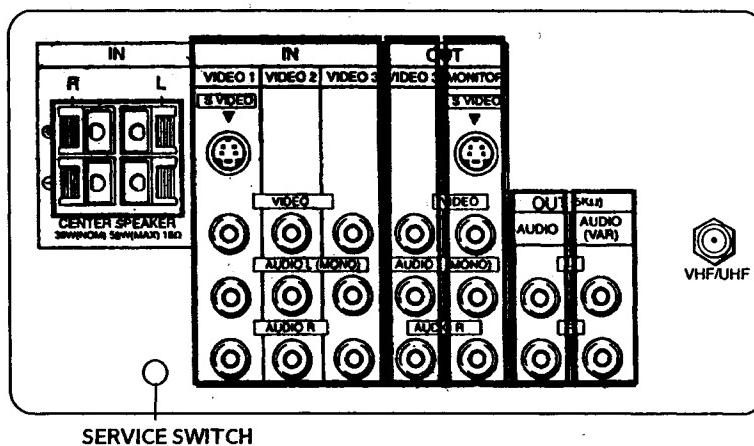
Use of Remote Commander (RM-Y112A) can be performed circuit adjustments about this model.

##### 1. METHOD OF SETTING THE SERVICE MODE

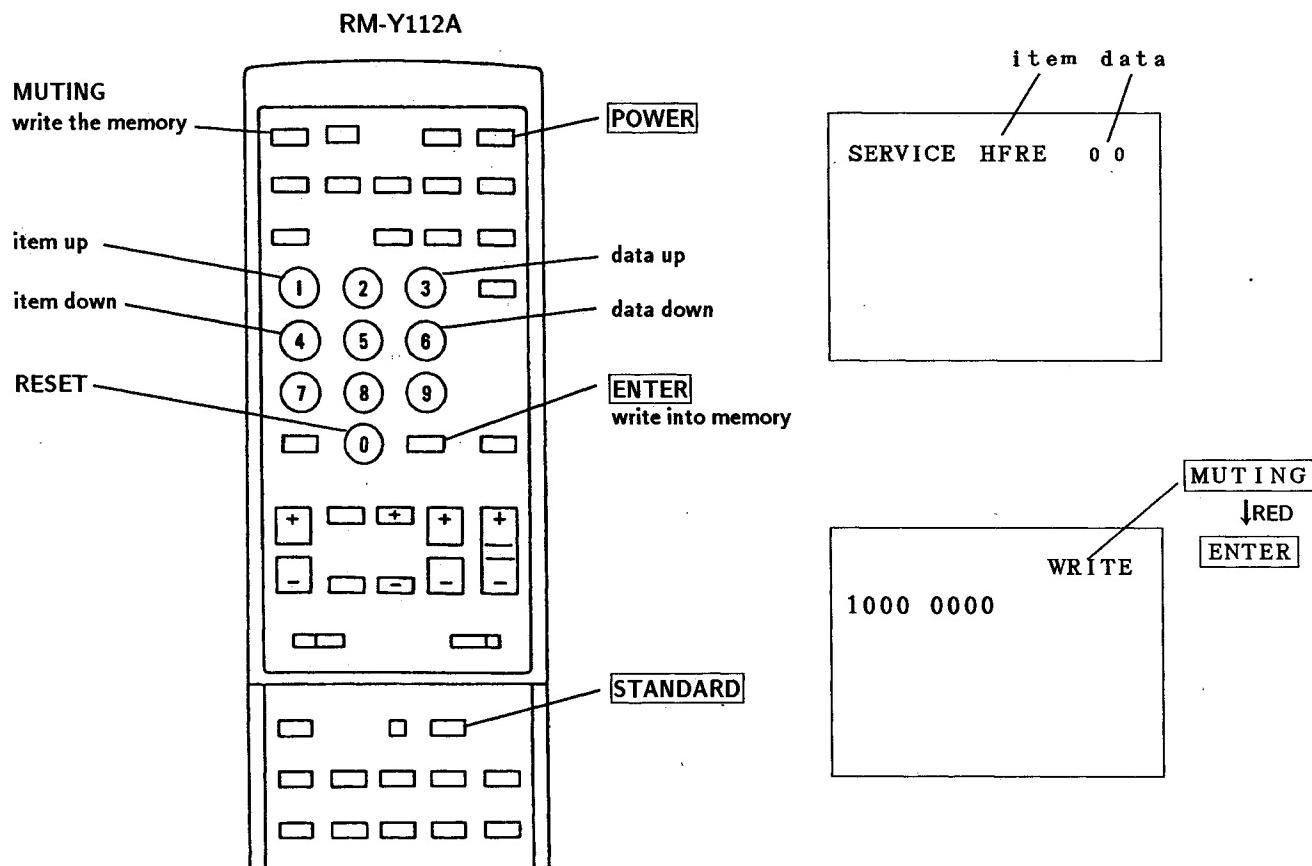
- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

**NOTE :** Test Equipment Required.

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC



##### 2. ADJUST BUTTONS AND INDICATOR



**3. AN ITEM OF ADJUSTMENT**

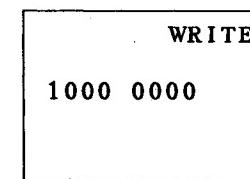
ITEM	REFERENCE DATA	NAME REGIST	
AFC	0	VP	AFC 1.0
HFRE	74	VP	H. FREQUENCE
VFRE	16	VP	V. FREQUENCE
HPOS	5	VP	H. PHASE
GAMP	25	VP	GREEN AMP.
BAMP	26	VP	BLUE AMP.
GCUT	9	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	28	VP	COLOR
SBRT	11	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAR	13	VP	SHARPNESS
DISP	24	VP	OUTPUT
VSMO	0	VP	VSMO
REF	1	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	0	VP	ABLM
DRGB	0	VP	D RGB
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I1
DEEM	7	AP	I2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	8	AP	BASS
TRE	8	AP	TREBLE
PHPO	32	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	6	PI	PICTURE LEVEL
PFCO	7	PI	FRAME COLOR
PPLL	1	PI	PLLOF
PPVS	6	PI	VSPDEL
NRLE	31	PI	NR LEVEL
DSPP	43	PJ	SHADON
SHAD	1	PJ	RS HAD
VMSW	1	PJ	SHAD CUT OFF

**4. METHOD OF CANCELLATION FROM SERVICE****MODE**

Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

**5. METHOD OF WRITE FOR MEMORY**

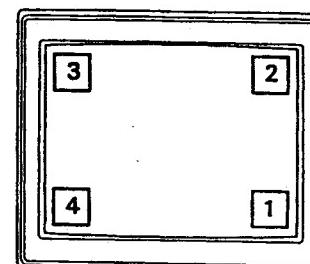
- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

**6. MEMORY WRITE CONFIRMATION METHOD**

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.

**7. PUB PICTURE POSITION ADJUSTMENT (PHPO, PVPO)**

Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.



PIP Positions

After making adjustments into the PIP 1 position, write the information into the ROM. Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

## 5-2. A BOARD ADJUSTMENTS

### RF AGC ADJUSTMENT(IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

### H.FREQUENCY ADJUSTMENT (HFRE)

- 1) Set to Service Mode.
- 2) Input a color-bar signal.
- 3) Connect a frequency counter to pin③ of A-10 connector.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **[1]** and **[4]**.
- 6) Adjust **[3]** and **[6]** to the  $15735 \pm 60$  Hz level.
- 7) Call the item of AFC again, adjust the level "01".
- 8) Write into the memory by pressing **MUTING** → then **ENTER**.

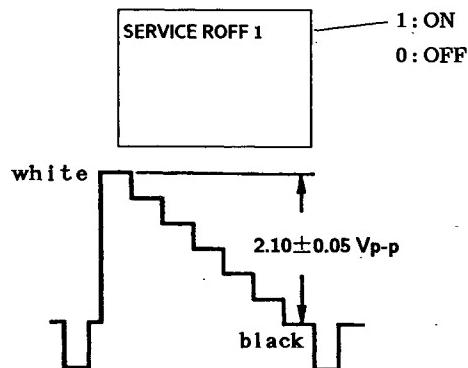
### V.FREQUENCY ADJUSTMENT (VFRE)

- 1) Set the Service Mode.
- 2) Input an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across connector **⑩**pin of E 1-1 connector and ground.
- 4) Select VFRE with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the  $56 \pm 0.5$  Hz.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.

### SUB CONTRAST ADJUSTMENT (SPIX)

- 1) Set to Service Mode.
- 2) Input a color-bar signal. (75 IRE)
- 3) Set the conditions as follows.

PICTURE	..... MAX
COLOR	..... MIN
BRIGHTNESS	..... MIN
TRINITONE	..... LOW
R OFF	..... ON
G OFF	..... OFF
B OFF	..... OFF

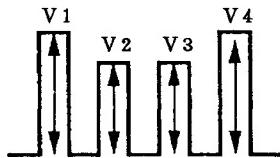


- 4) Connect an oscilloscope to **⑩**pin of E1-1 connector on A board and ground.
- 5) Adjust **[3]** and **[6]** to the  $2.10 \pm 0.05$  Vp-p level by selecting SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.
- 7) Return the following back to normal after adjustment.

G OFF	..... ON
B OFF	..... ON
COLOR	..... CENTER
BRIGHTNESS	..... CENTER
TRINITONE	..... HIGH
PICTURE	..... 80%

### SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

- 1) Input a color-bar signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Connect an oscilloscope to pin② of E1-1 connector on A board and ground.
- 5) Adjust **3** and **4** to the V1=V4 and V2=V3 by select to SHUE and SCOL with **1** and **4**. Lower the data 4 steps from this point.

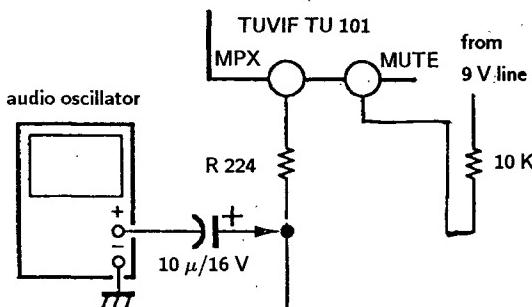


- 6) Write into the memory by pressing **MUTING** → then **ENTER**.

### FILTER ADJUSTMENT (MPX, FILO)

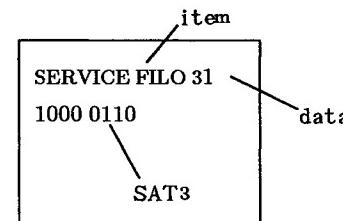
- 1) Set to Service Mode.
- 2) Select to **TEST** with **1** and **4**, set the data to "1". Then select MPX and change data to "8".
- 3) Connect an audio oscillator to R224 using a capacitor (10μF/16V), set frequency to 62.936 kHz ± 0.1 kHz.

And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.

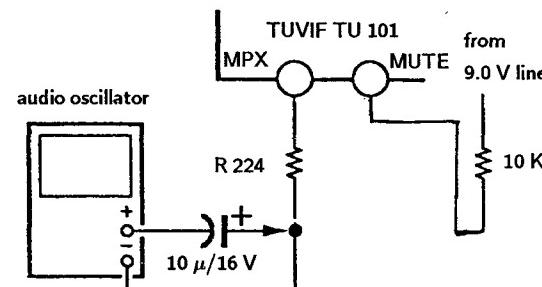


V 4 fh : SINE-WAVE 62.936 KHz ± 0.1 KHz  
LEVEL 3.0 Vp-p

- 4) Make the data "00" by selecting FILO with **1** and **4**. And then, send up the data gradually by pressing **6**. Set the data to D1 before SAT3 changing to 1 from 0.
- 5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
- 6) Adjust the data of FILO to  $\frac{D_1 + D_2}{2}$ .
- 7) Write into the memory by pressing **MUTING** → then **ENTER**.

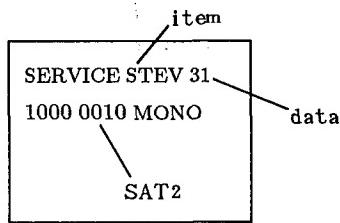


- 1) Set to Service Mode.
- 2) Select TEST with **1** and **4**, set the data to "1". And then press **MTS** to MONO.
- 3) Select MPX, set the data "8".
- 4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μF/16V) and apply the frequency Vst. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.



Vfh : SINE-WAVE 15.734 KHz ± 0.1 KHz  
LEVEL 0.28 Vp-p

- 5) Select STEV with [1] and [4], set the data to "00" with [6]. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
- 6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to  $(D1+D2)/2$ .
- 8) Write into the memory by pressing **MUTING** → then **ENTER**.



#### **MPX IN LEVEL ADJUSTMENT (MPX)**

- 1) Set to Service Mode.
- 2) Select TEST with [1] and [4], set the data to "0" with [6]. And then press **MTS** to MONO.
- 3) Select MPX with [1] and [4], set the data to "8" with [3] and [6].
- 4) Write into the memory by pressing **MUTING** → then **ENTER**.

#### **PILOT CANCEL ADJUSTMENT (PILO)**

- 1) Set to the Service Mode.
- 2) Select PILO with [1] and [4], set the data to "08" with [3] and [6].
- 3) Write into the memory by pressing **MUTING** → then **ENTER**.

#### **SAP VCO f<sub>0</sub> ADJUSTMENT (SAPV)**

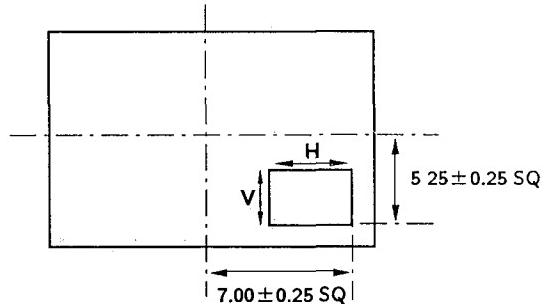
- 1) Set to Service Mode.
- 2) Input a stereo broadcast signal with SAP.
- 3) Select TEST with [1] and [4], set the data to "0". And then, press **MTS** to MAIN.
- 4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
- 5) Press MTS to SAP and this voltage will equal V 2.
- 6) Select SAPV with [1] and [4], adjust [3] and [6] so that  $V2 = V1 \pm 0.03$  VDC.
- 7) Write the memory by **MUTING** → **ENTER**.

#### **SEPARATION ADJUSTMENT (SEP)**

- 1) Set to Service Mode.
- 2) Press **MTS** to MAIN and receive a monoral broad-cast signal.
- In the next step, receive a stereo broadcast signal.
- 3) Select SEP and VD with [1] and [4], adjust [3] and [6] so that a clear stereo sound is effected.

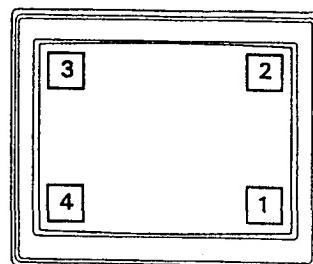
#### **SUB PICTURE POSITION ADJUSTMENT (PHPO, PVPO)**

- 1) Input a cross hatch signal.
- 2) Set to service mode.
- 3) Press PIP to display a sub picture.  
(RIGHT LOWER Position)
- 4) Select PHPO, PVPO with [1] and [4]
- 5) Adjust [3] and [6] to the standard as shown below.
- 6) Write the memory by pressing **MUTING** → then **ENTER**.



#### **PUB PICTURE POSITION ADJUSTMENT (PHPO, PUPO)**

Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.



PIP Positions

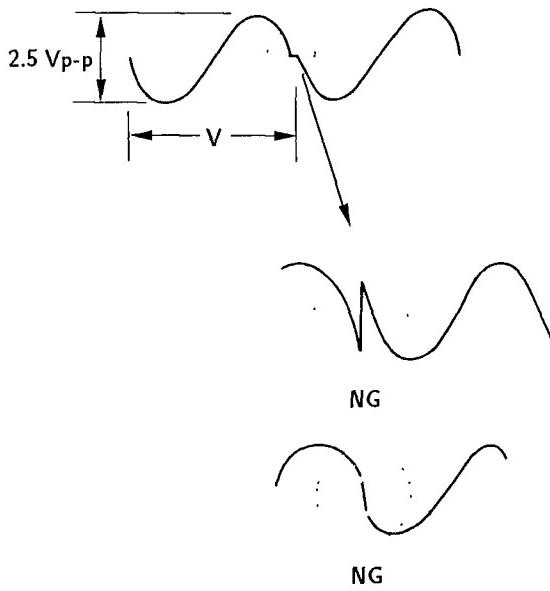
After making adjustments into the PIP 1 position, write the information into the ROM.

Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

### 5-3. DS BOARD ADJUSTMENTS

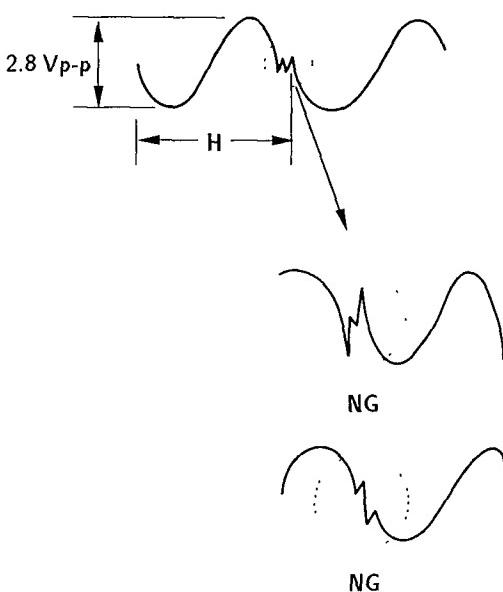
#### V. 3 WAVE ADJUSTMENT (RV983)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin⑦ of DS board ground.
- 3) Adjust RV983 as shown the following figure.

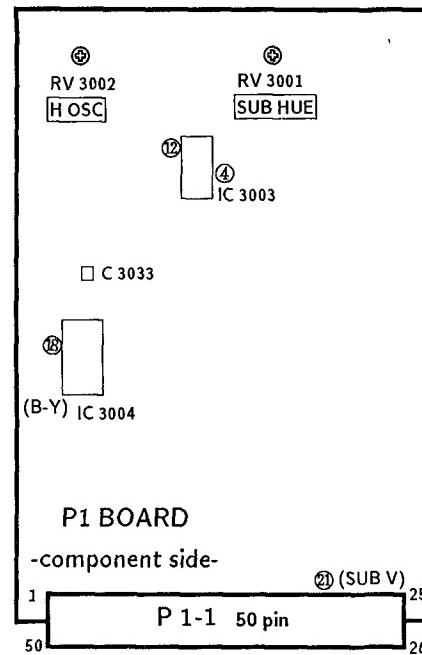


#### H. 3 WAVE ADJUSTMENT (RV984)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin① of DS board ground.
- 3) Adjust RV984 as shown the following figure.

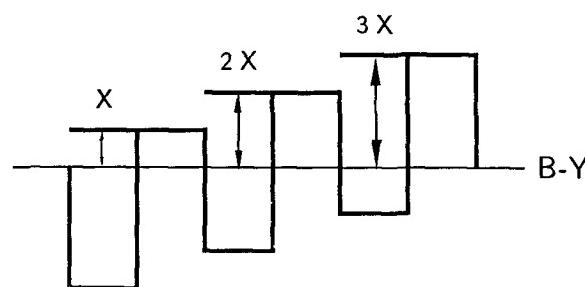


### 5-4. P1 BOARD ADJUSTMENTS



#### SUB HUE ADJUSTMENT (RV 3001)

- 1) Set HUE and COLOR to the standard condition.
- 2) Make adjustment so that B-Y signal as shown to the right is obtained at the crossing point of R 3009 ( $0 \Omega$ ) and C 3033.
- 3) Supply the color bar signal of 75 IRE (white) at 2 Vpp to Pin ② (SUB V) of P 1-1 and make adjustment by turning RV 3001.



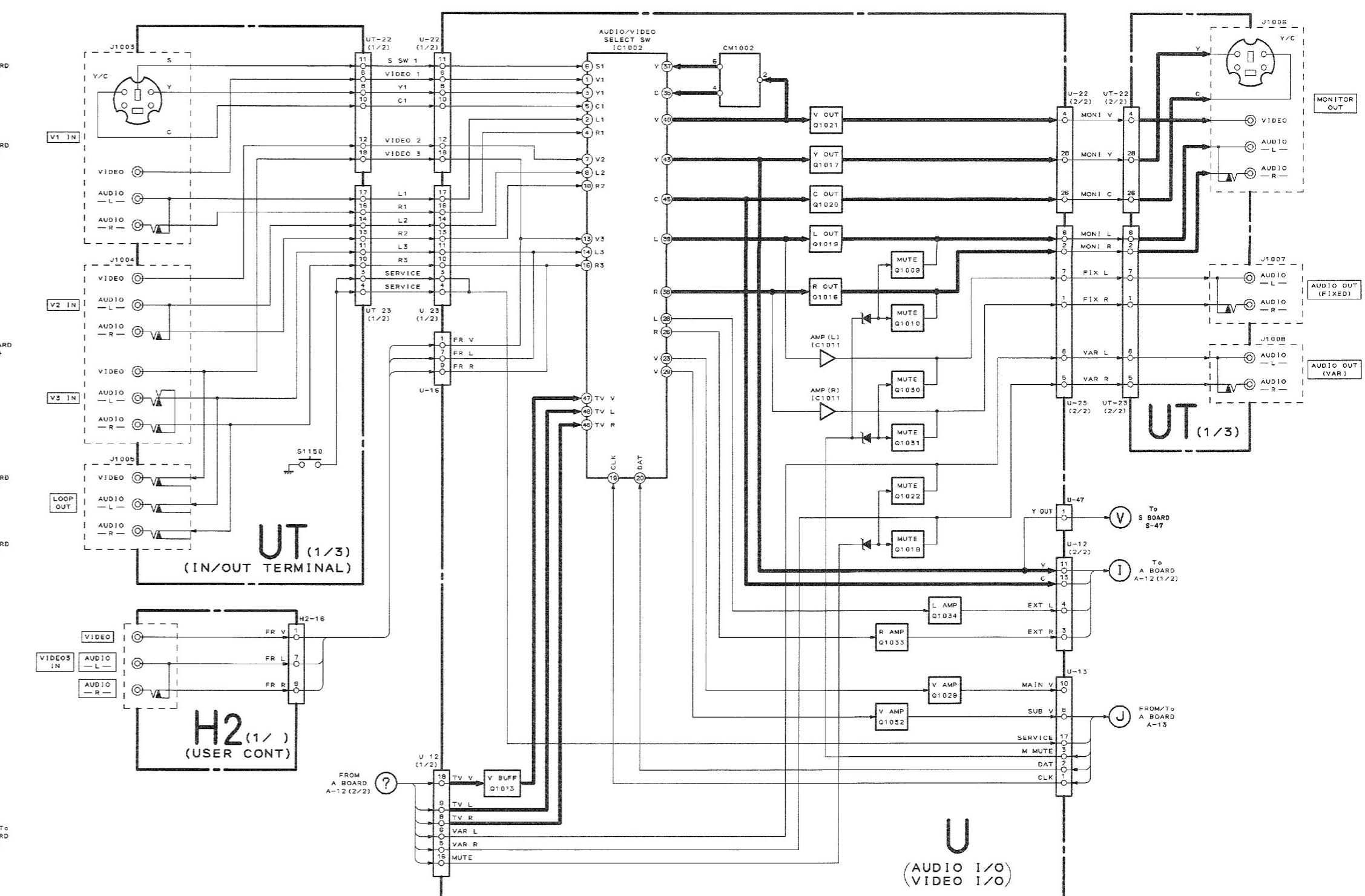
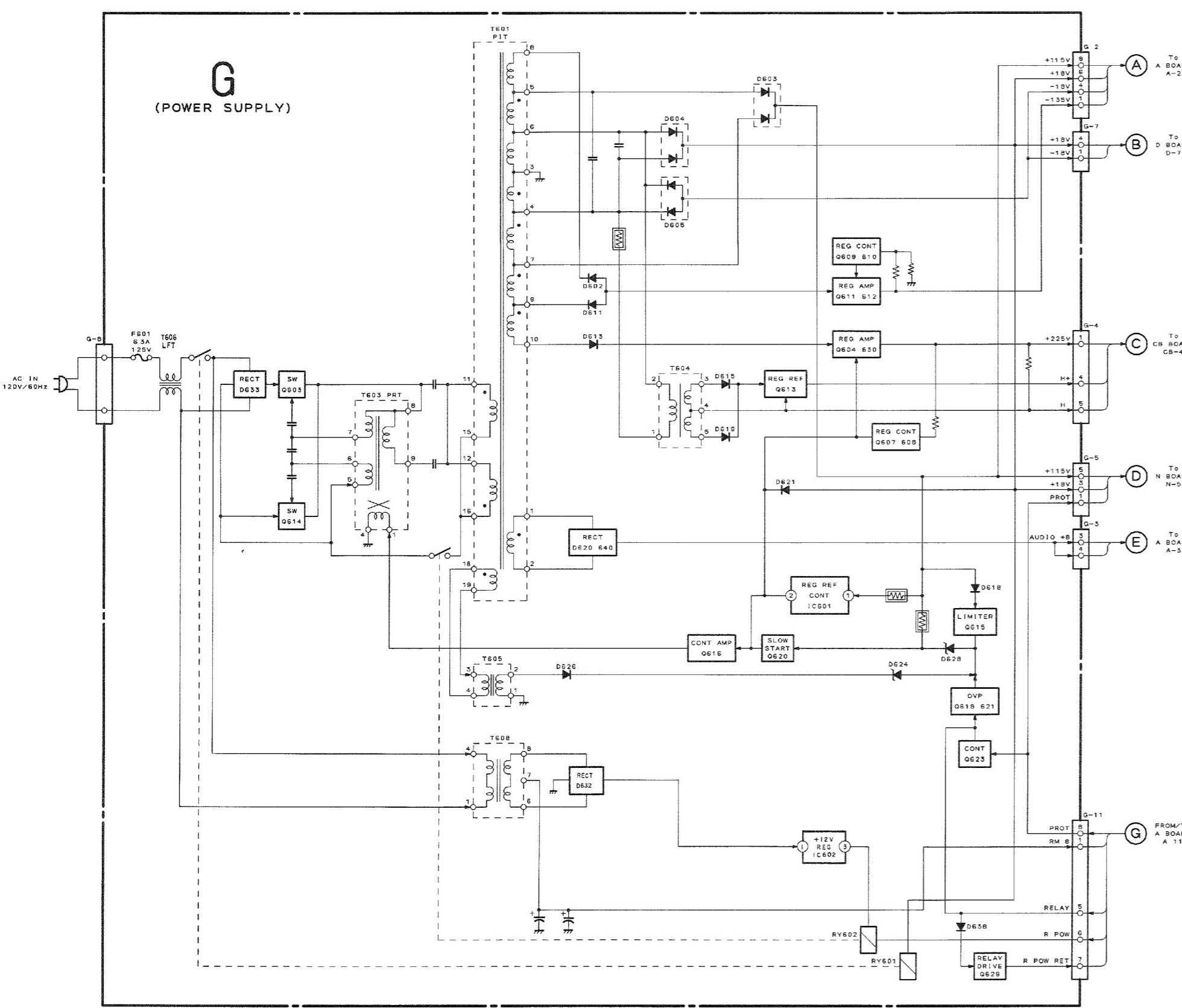
#### H. FREQUENCY (H OSC) ADJUSTMENT (RV-3002)

- 1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
- 2) Connect Pin ⑫ of IC 3003 to ground.
- 3) Adjust RV3002 for a frequency of 15.734 kHz  $\pm$  50 Hz at Pin ④ of IC 3003.  
(or until the frequency comes to a standstill.)

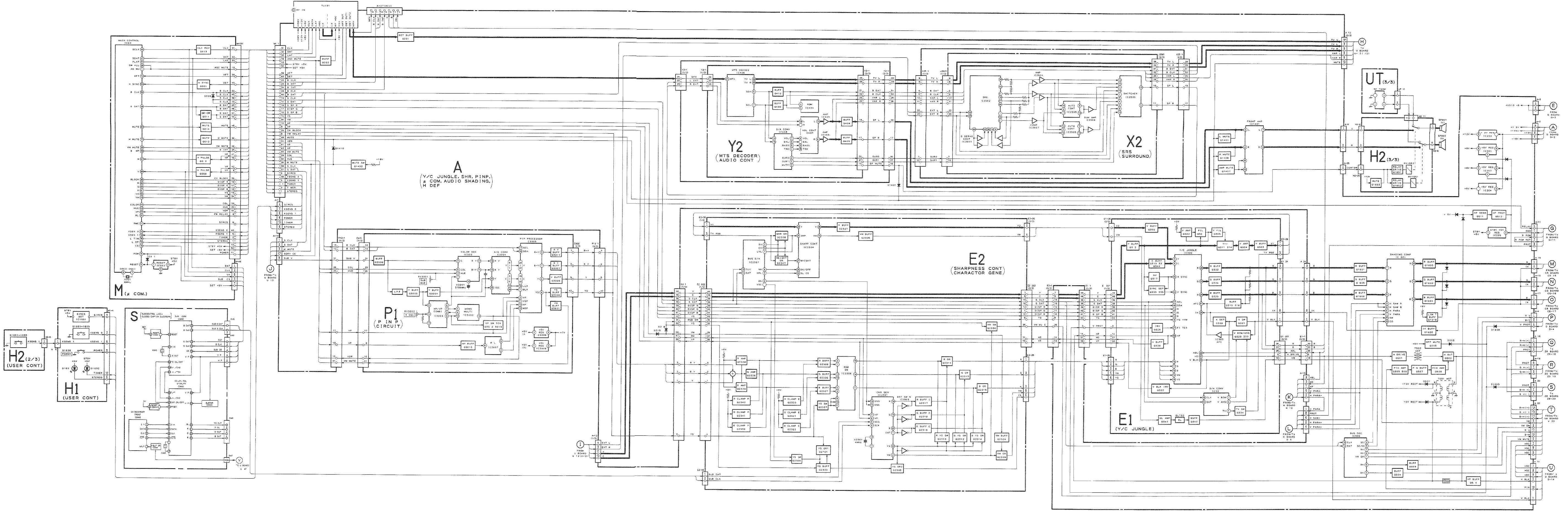


SECTION 6  
DIAGRAMS

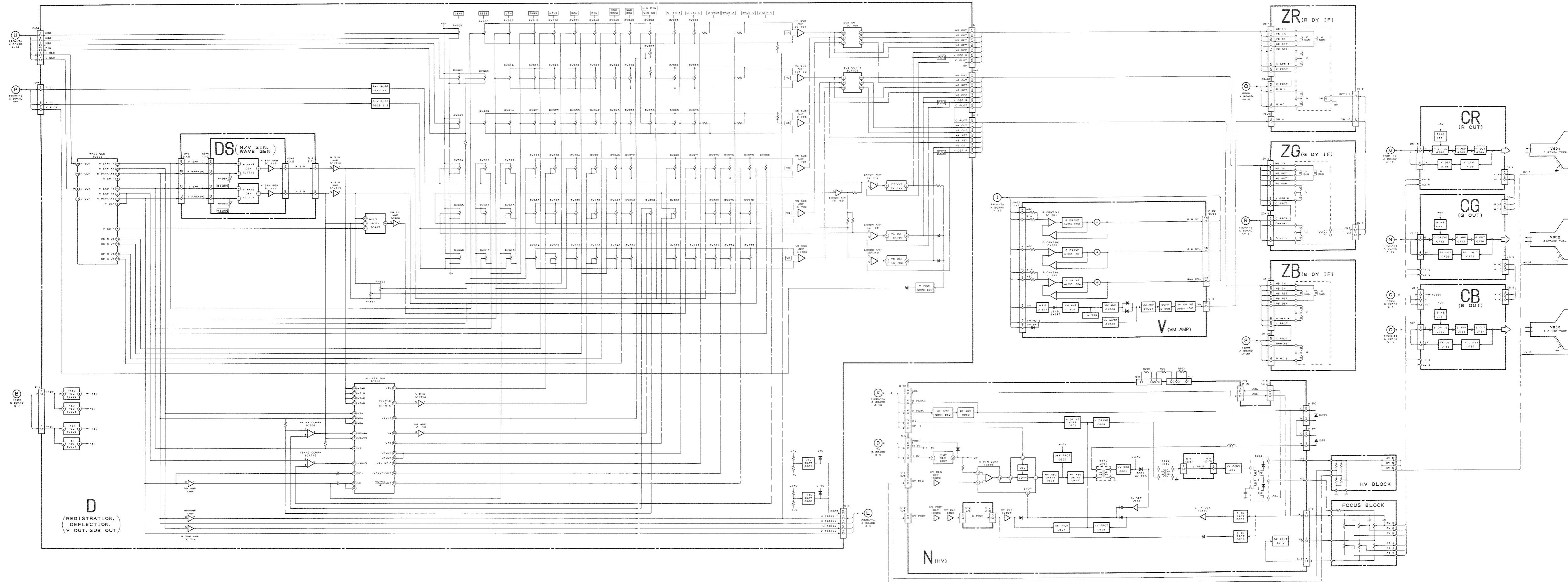
6-1.BLOCK DIAGRAM (1)



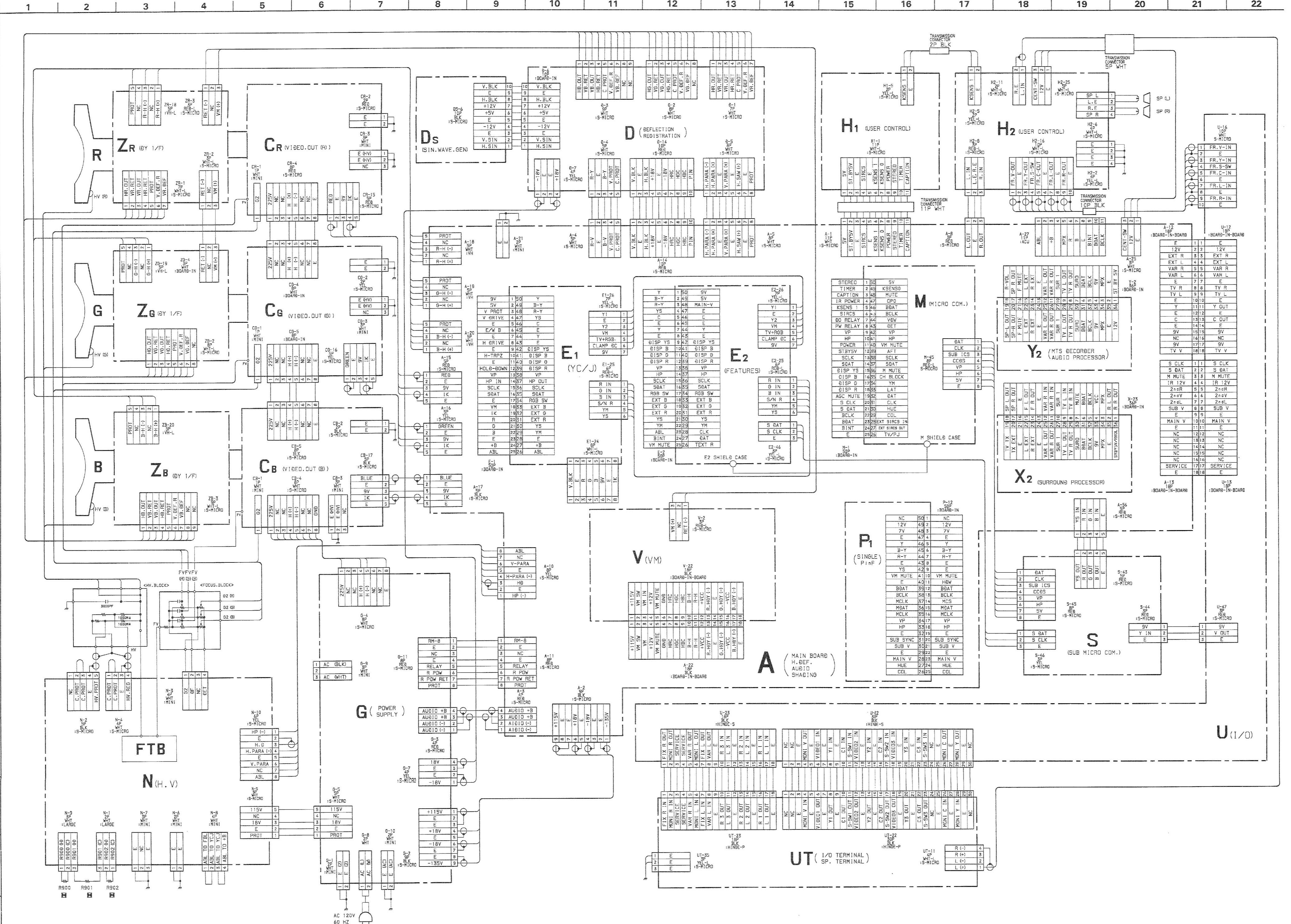
## 6-2.BLOCK DIAGRAM (2)



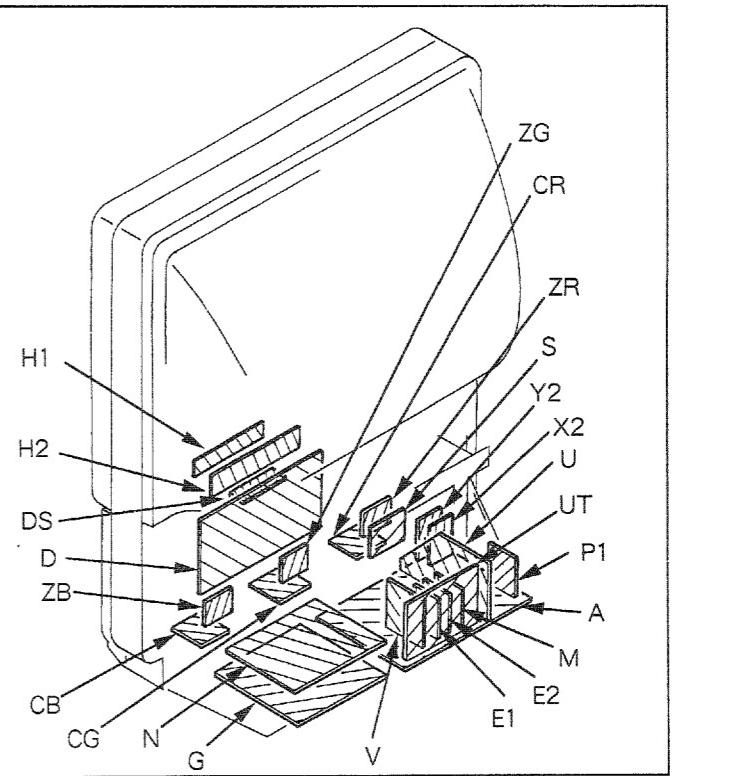
## 6-3.BLOCK DIAGRAM (3)



6-4.FRAME SCHEMATIC DIAGRAM



6-5.CIRCUIT BOARDS LOCATION



6-6.SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:  
• All capacitors are in  $\mu$ F unless otherwise noted. PF:  $\mu$ PF  
50WV or less are not indicated except for electrolytics and tantalums.

• All electrolytics are in 50V unless otherwise specified.  
• All resistors are in ohms.  
 $k\Omega = 1000\Omega$ ,  $M\Omega = 1000k\Omega$

• Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5mm  
Rating electrical power: 1/4W

• Chips resistors are 1/10W.  
• : nonflammable resistor.

• : internal component.

• : panel designation and adjustment for repair.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

• : earth-ground.

• : earth-chassis.

• The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

• When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.

(Refer to R652, R852, R900, R901, and RG02 adjustment on Page 53~56.)

When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
HV Block IC803, IC805, D805, D807 C817, C816, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R884, R865, R885, R902	N Board HV Regulator (R902)
HV Block IC803, IC804, Q804, D806 D808, C809, C819, C820, C822, C823, C850, R807, R826, R828, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901	N Board HV Hold down (R900, R901)
Q818, Q621, D628, C634, D639, R649, R652, R655, R656,	G Board OVP (R652)
① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881	N Board Beme current protector ① R852 ② R852
IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R853, R856, R857, R881	N Board

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

Reference information  
RESISTOR : RN METAL FILM  
RC SOLID  
PPRD NONFLAMMABLE CARBON  
FUSE NONFLAMMABLE FUSIBLE  
RS NONFLAMMABLE METAL OXIDE  
RB NONFLAMMABLE CEMENT  
RW NONFLAMMABLE WIREWOUND  
\*\* ADJUSTMENT RESISTOR  
COIL LF-8L MICRO INDUCTOR  
CAPACITOR TA TANTALUM  
PS STYROL  
PP POLYPROPYLENE  
PT MYLAR  
MPS METALIZED POLYESTER  
MPP METALIZED POLYPROPYLENE  
ALB BIPOLAR  
ALT HIGH TEMPERATURE  
ALR HIGH RIPPLE

• Readings are taken with a color-bar signal input.  
• Readings are taken with a 10MΩ digital multimeter.  
• Voltage are dc with respect to ground unless otherwise noted.  
• Voltage variations may be noted due to normal production tolerances.  
• All voltages are in V.

• Circled numbers are waveform references.  
• : B+ bus.  
• : B- bus.  
• : signal path.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

• : B+ bus.

• : B- bus.

• : signal path.

• Readings are taken with a color-bar signal input.

• Readings are taken with a 10MΩ digital multimeter.

• Voltage are dc with respect to ground unless otherwise noted.

• Voltage variations may be noted due to normal production tolerances.

• All voltages are in V.

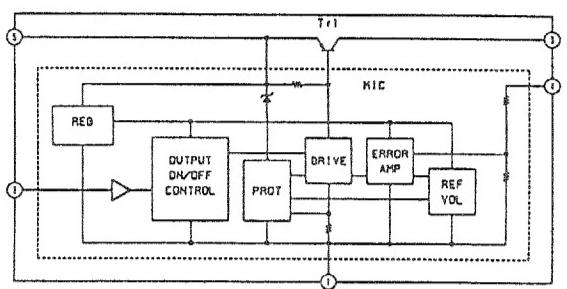
• : B+ bus.

• : B- bus.

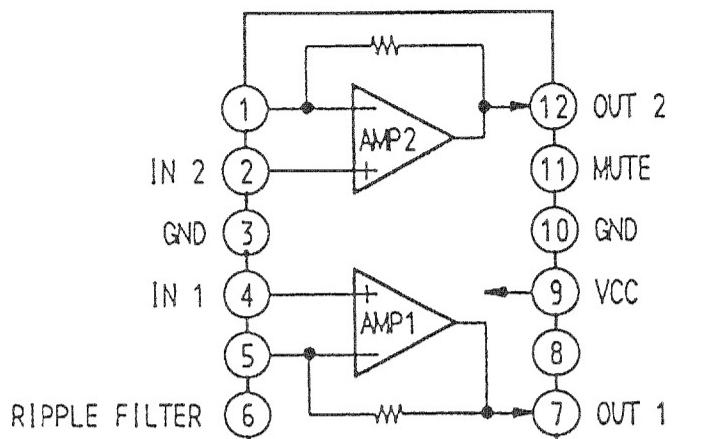
• : signal path.

• Readings are taken with a color-bar signal input.

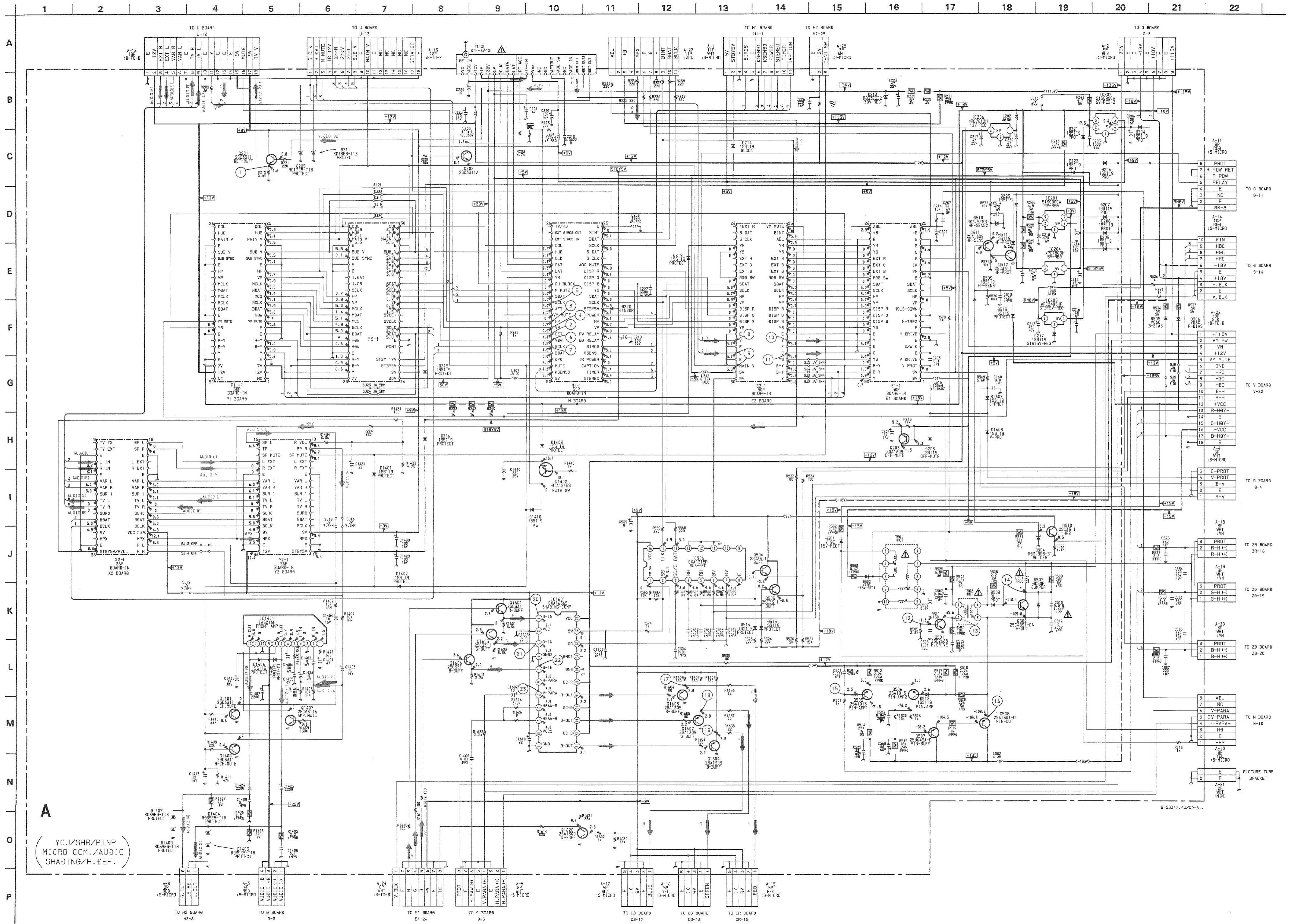
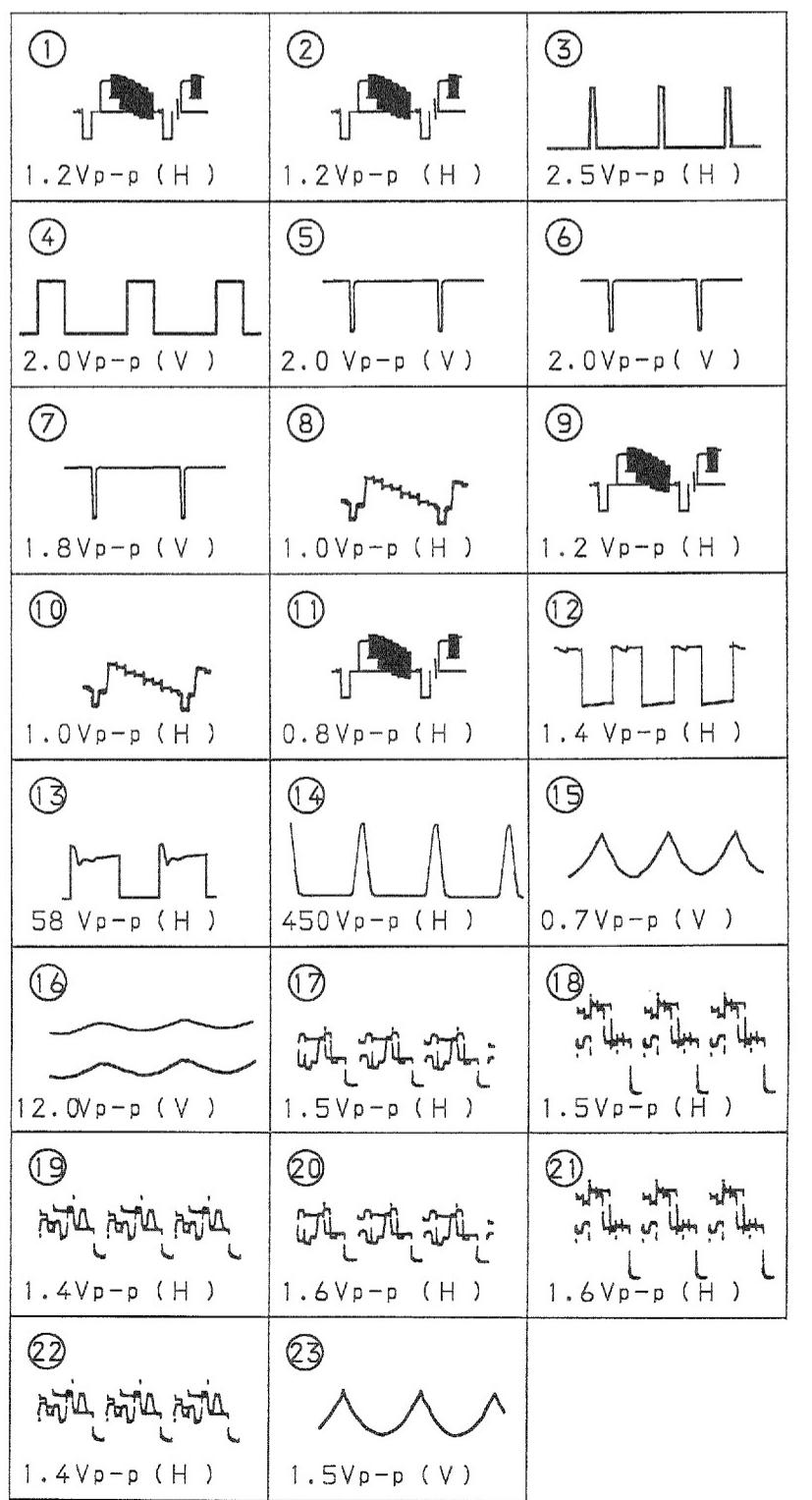
\* A BOARD IC201,207 SI-3090CA



\* A BOARD IC1401 TA8216H



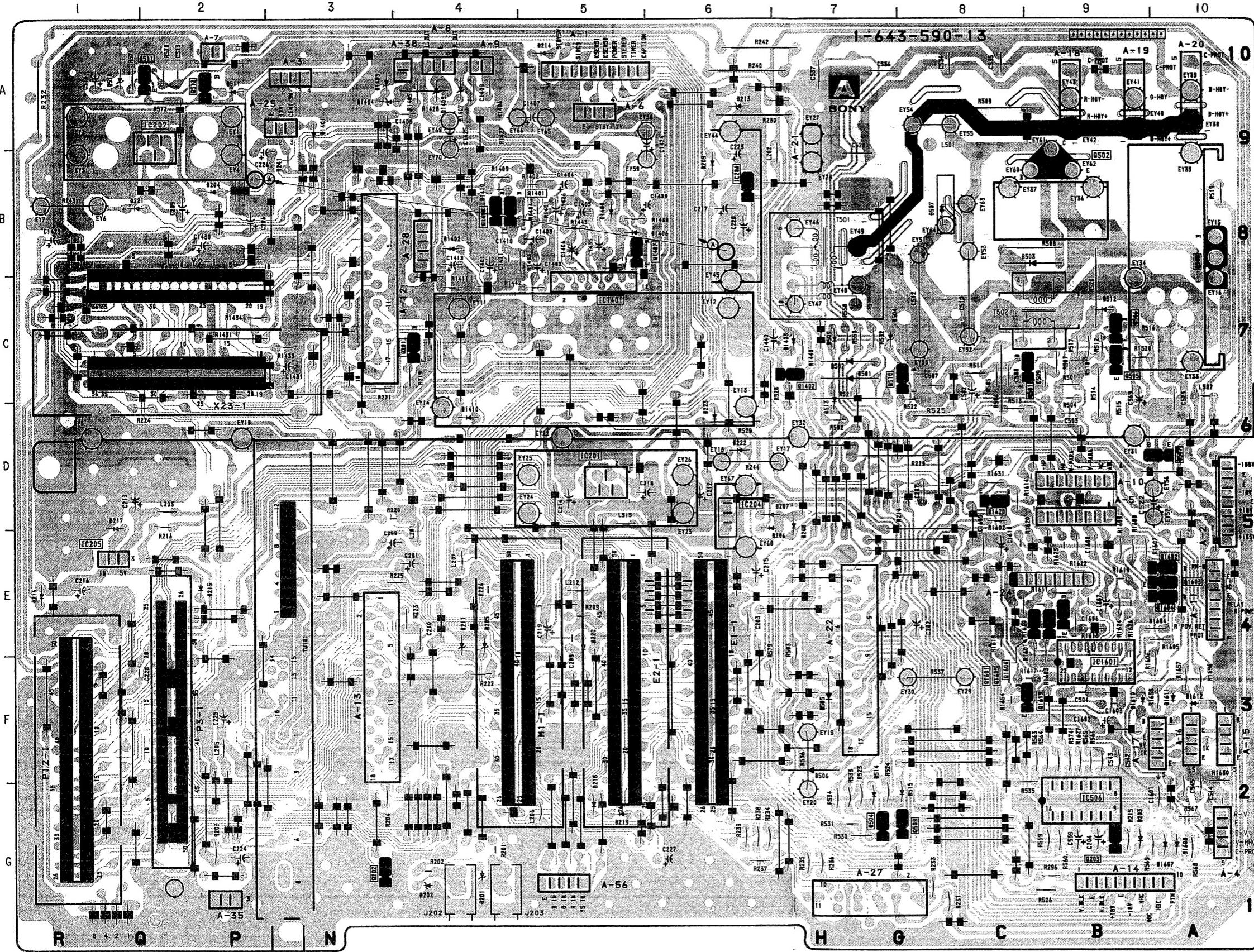
\* A BOARD WAVEFORMS



**A** [Y/C JUNGLE, SHR, P IN P,  $\mu$  CON,  
AUDIO SHADING, H DEF]

**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

**- A BOARD -**

IC	
IC201	D-5
IC204	D-6
IC205	E-1
IC206	B-6
IC207	A-2
IC506	G-9
IC1401	C-5
IC1601	F-9

TRANSISTOR	
Q201	C-4
Q202	G-3
Q203	G-9
Q501	C-9
Q502	B-9
Q504	F-7
Q505	C-9
Q506	C-9
Q507	D-10
Q508	B-10
Q509	G-8
Q510	G-8
Q511	A-2
Q512	A-2
Q1401	B-4
Q1402	C-7
Q1403	C-7
Q1404	A-3
Q1405	A-3
Q1406	B-5
Q1407	A-4
Q1408	B-5
Q1601	E-9
Q1602	E-10
Q1603	E-10
Q1604	E-10
Q1605	E-9
Q1606	E-9
Q1607	G-10
Q1608	G-10

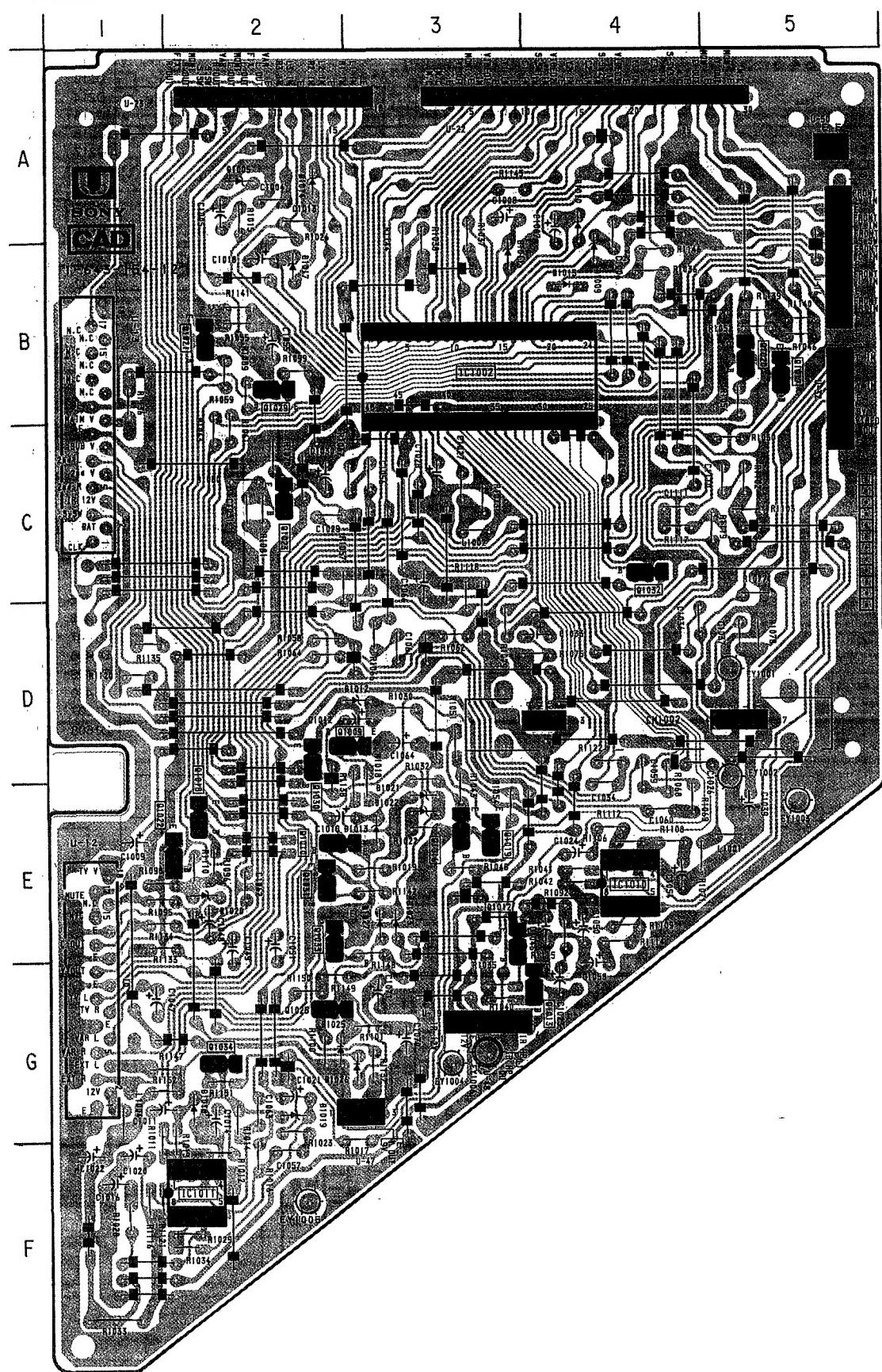
DIODE	
D203	G-9
D204	B-2
D205	E-4
D206	D-7
D207	D-7
D208	E-7
D209	B-6

**U** [AUDIO IN/OUT]  
[VIDEO IN/OUT]

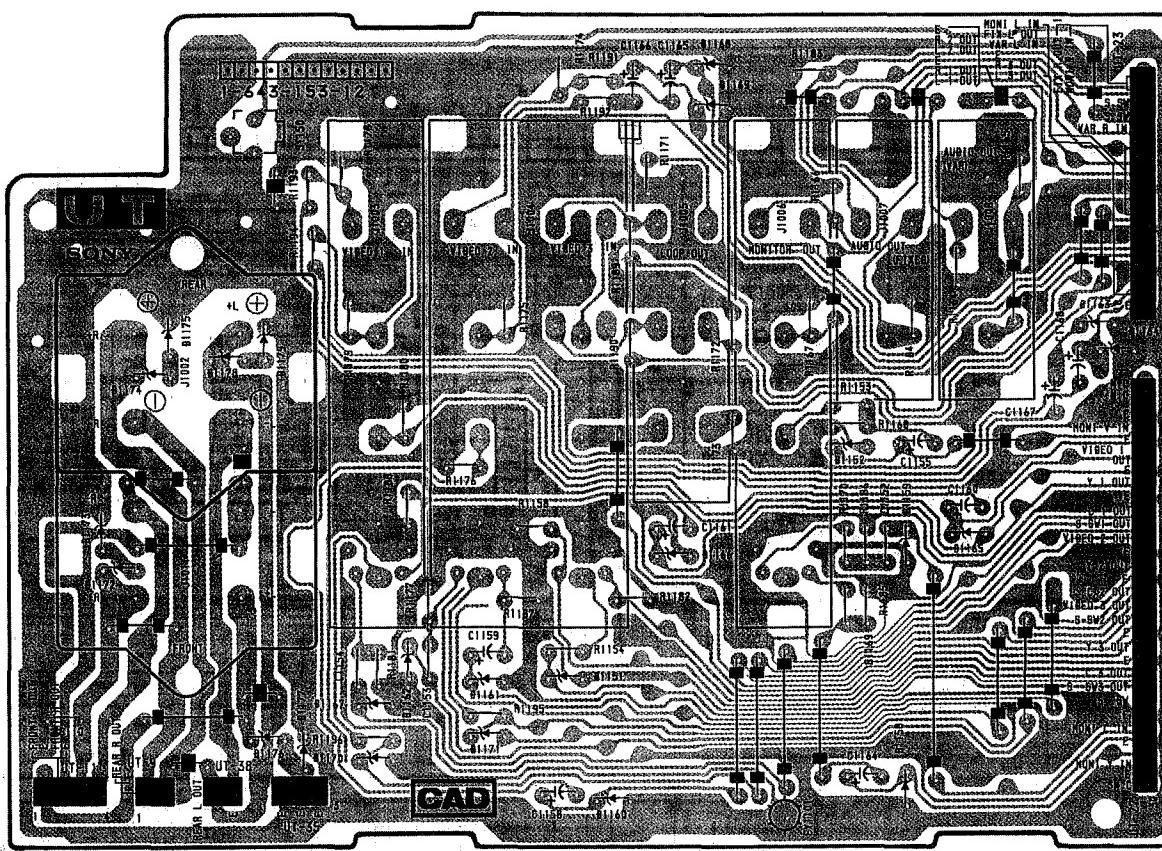
**UT** [IN/OUT TERMINAL]  
SP. TERMINAL

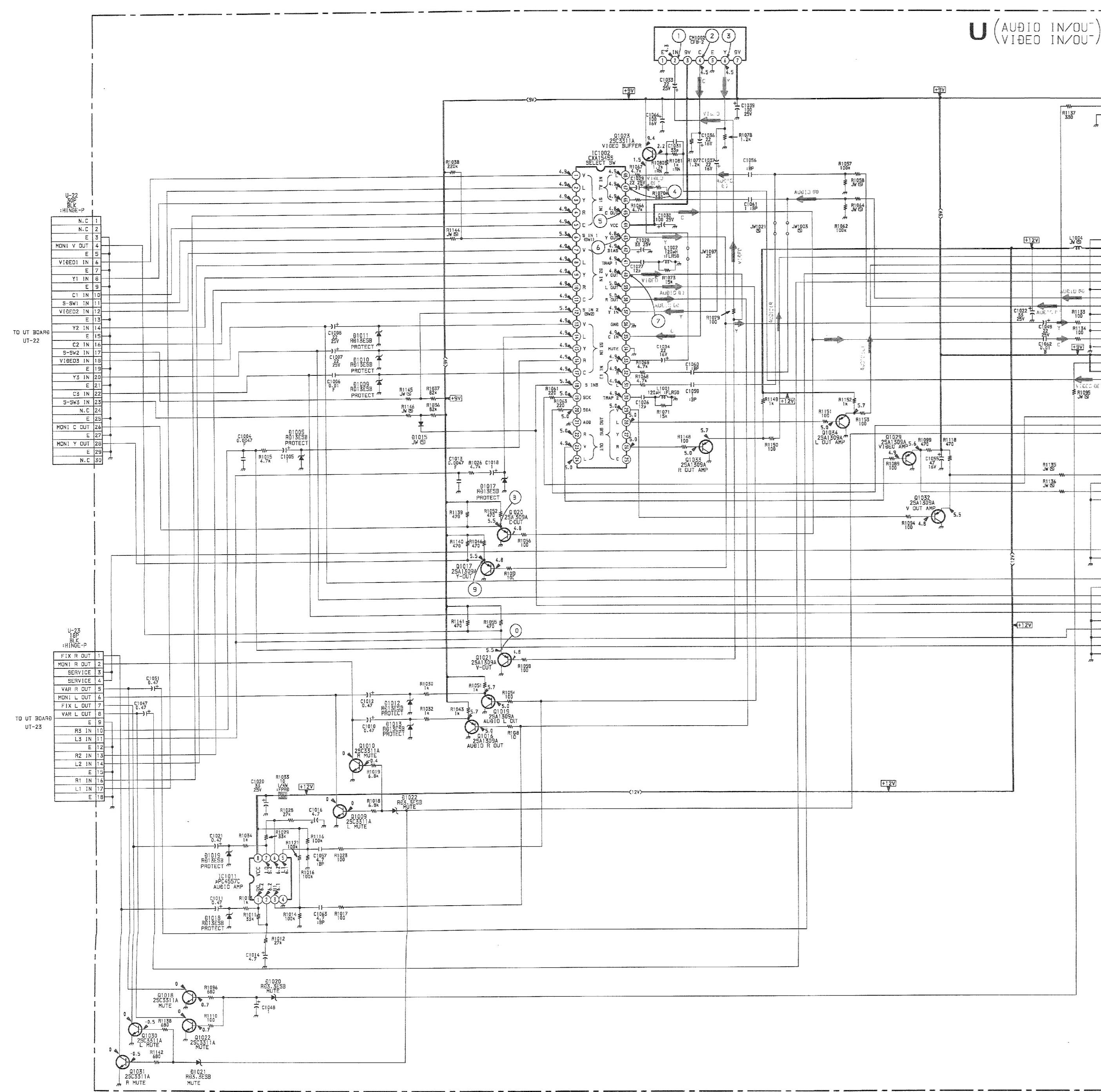
## - U BOARD -

IC
IC1002 B-3
IC1011 F-2
TRANSISTOR
Q1009 D-2
Q1016 E-3
Q1017 B-5
Q1018 E-2
Q1019 E-3
Q1020 B-5
Q1021 B-2
Q1022 E-1
Q1023 C-2
Q1029 B-2
Q1030 D-2
Q1031 E-2
Q1032 C-4
Q1033 E-2
Q1034 G-2
DIODE
D1005 A-2
D1009 B-4
D1010 A-4
D1011 B-3
D1012 D-3
D1013 E-3
D1015 B-4
D1017 B-2
D1018 G-2
D1019 G-2
D1020 E-2
D1021 E-3
D1022 E-3

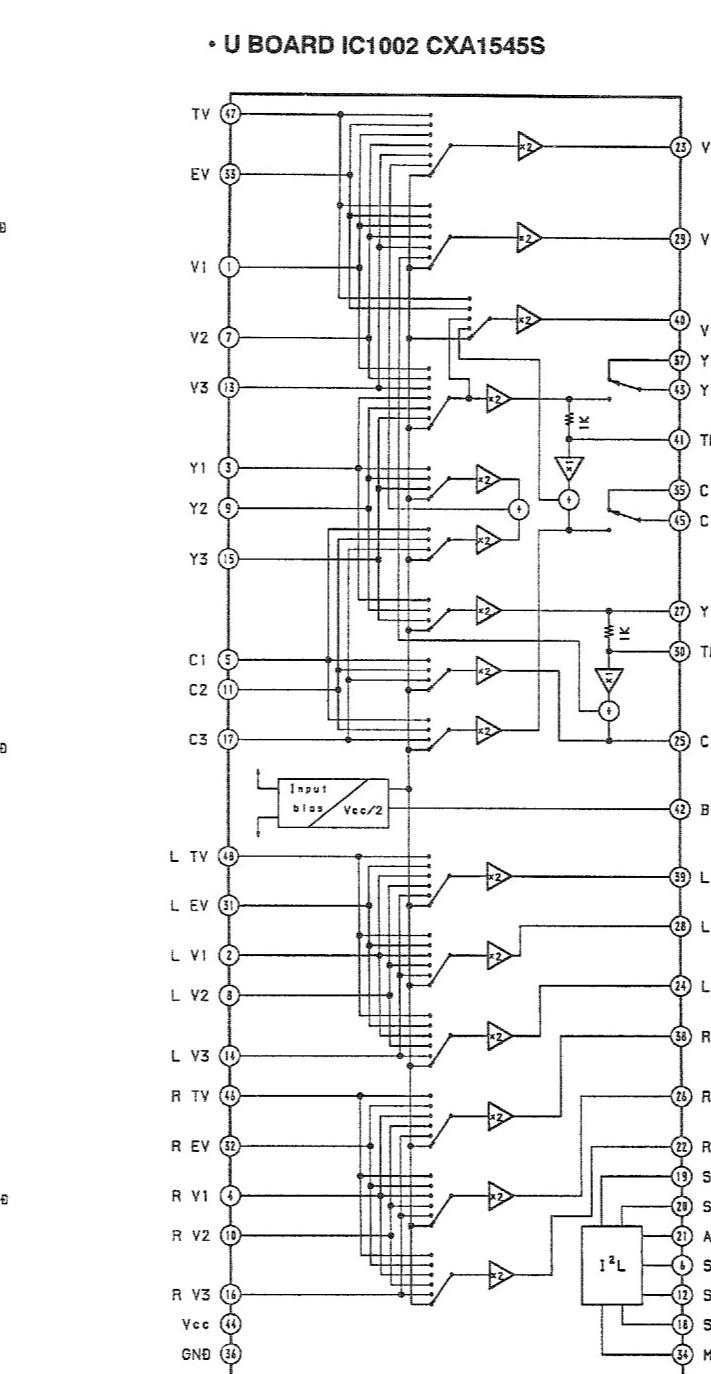


- UT BOARD -

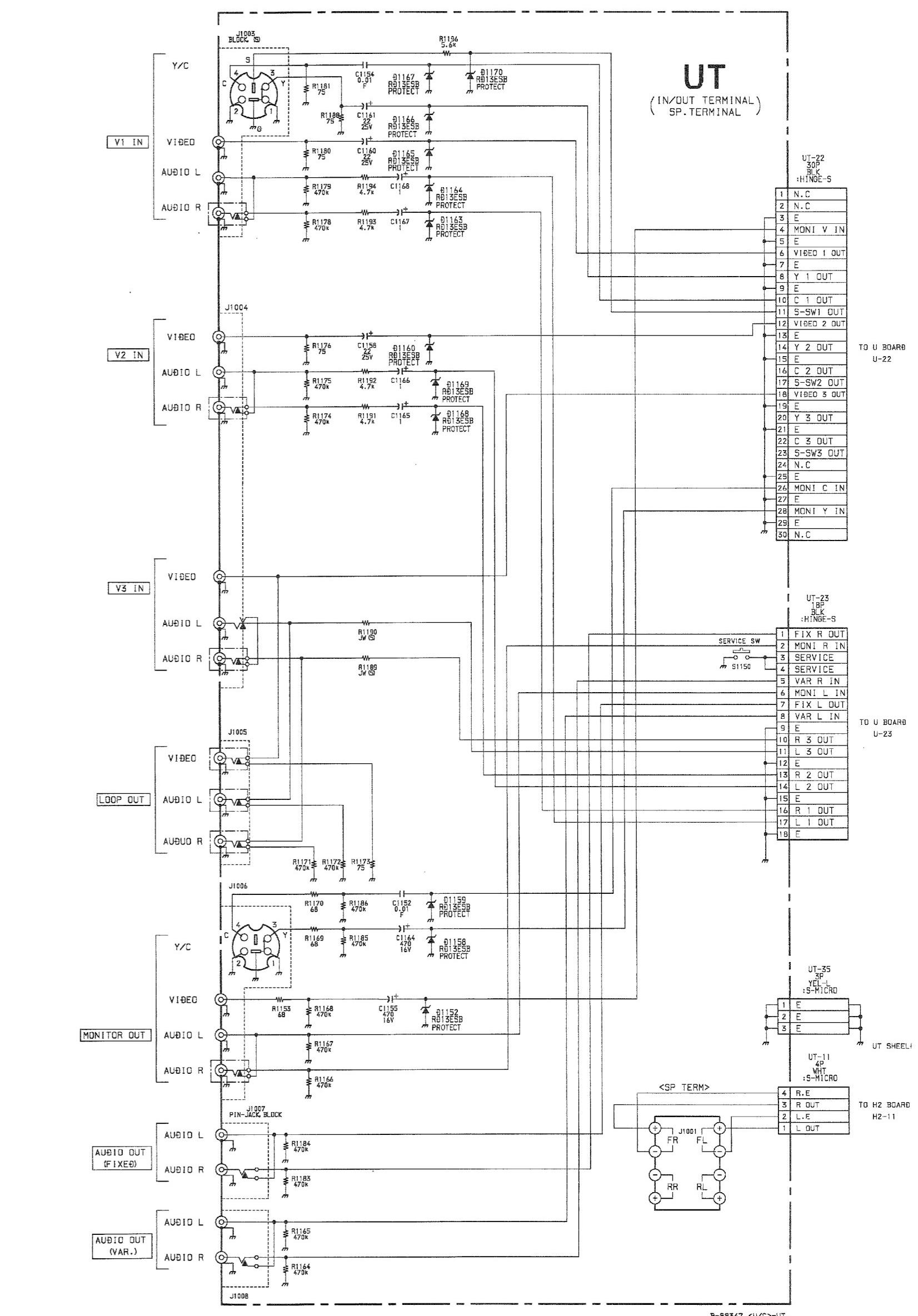
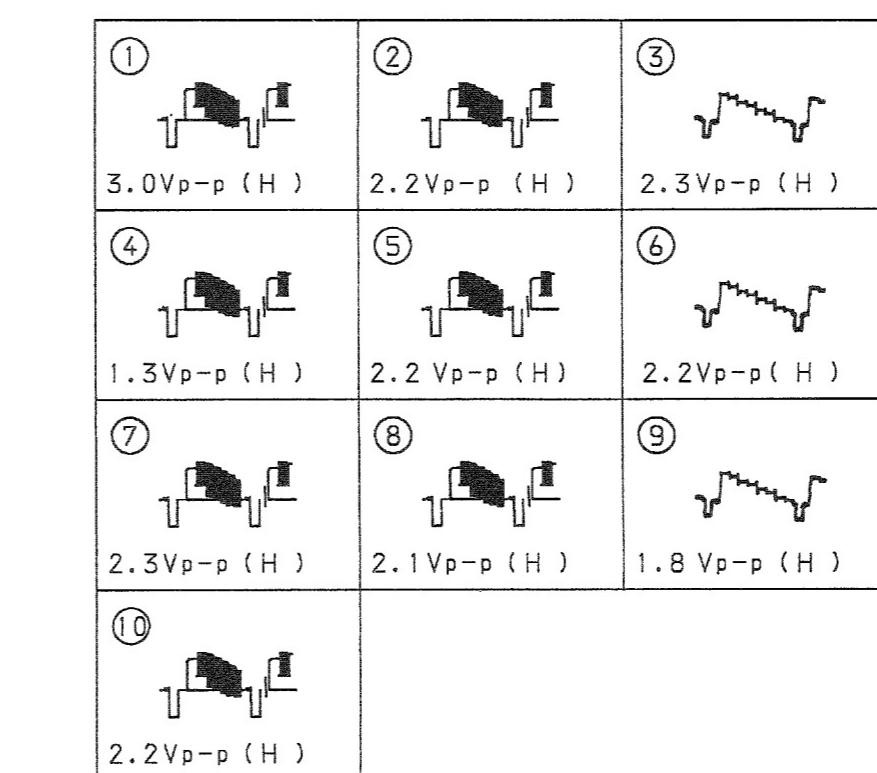




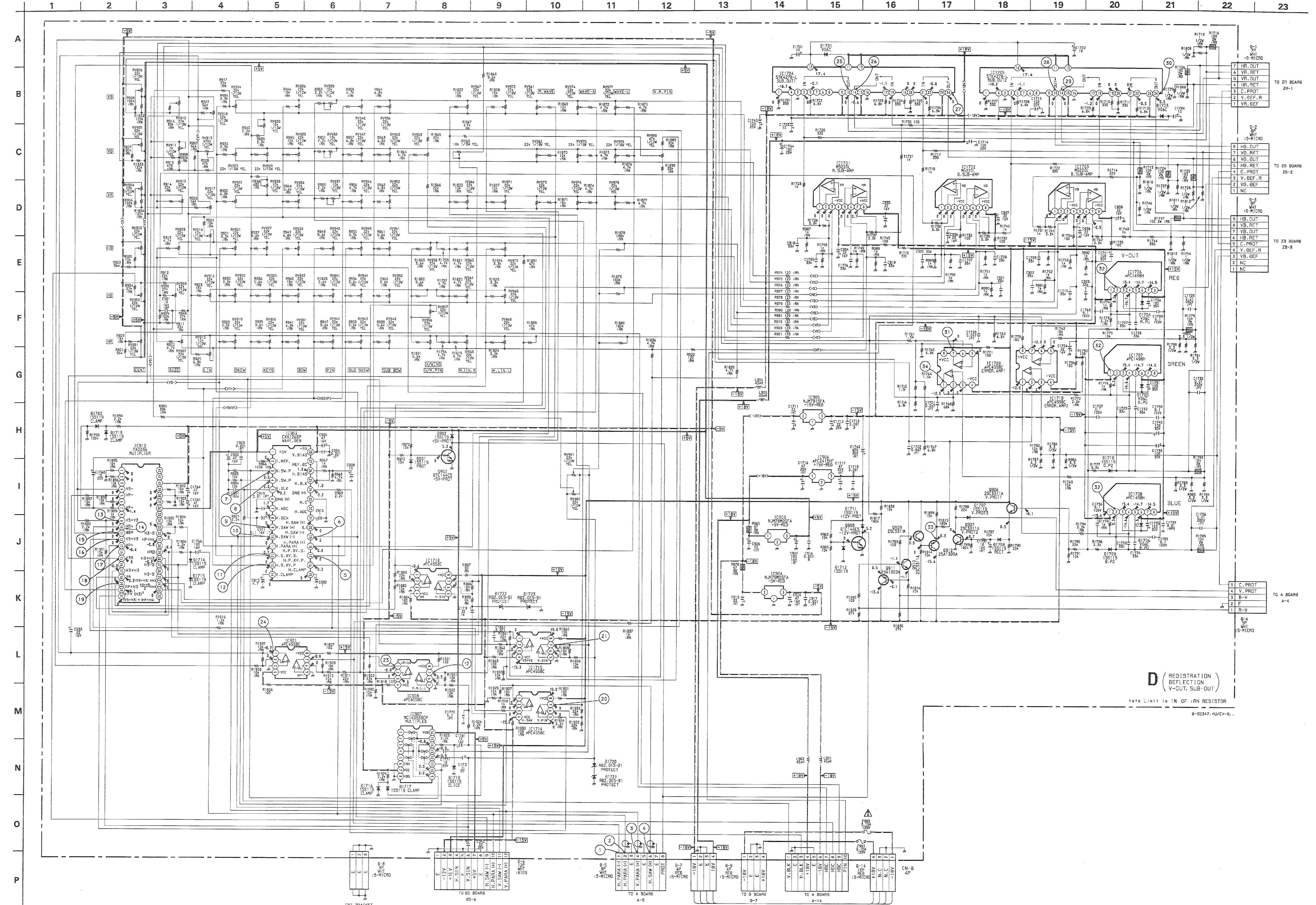
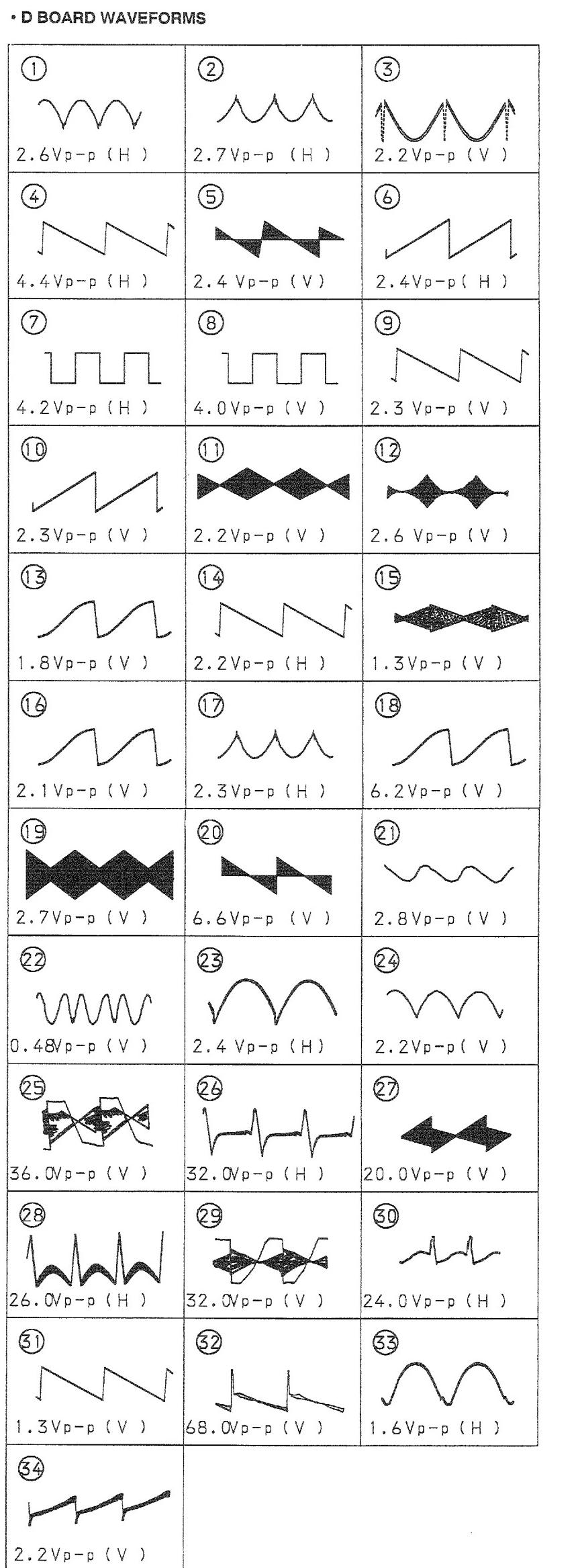
U (AUDI  
VIF)



• II BOARD WAVEFORMS

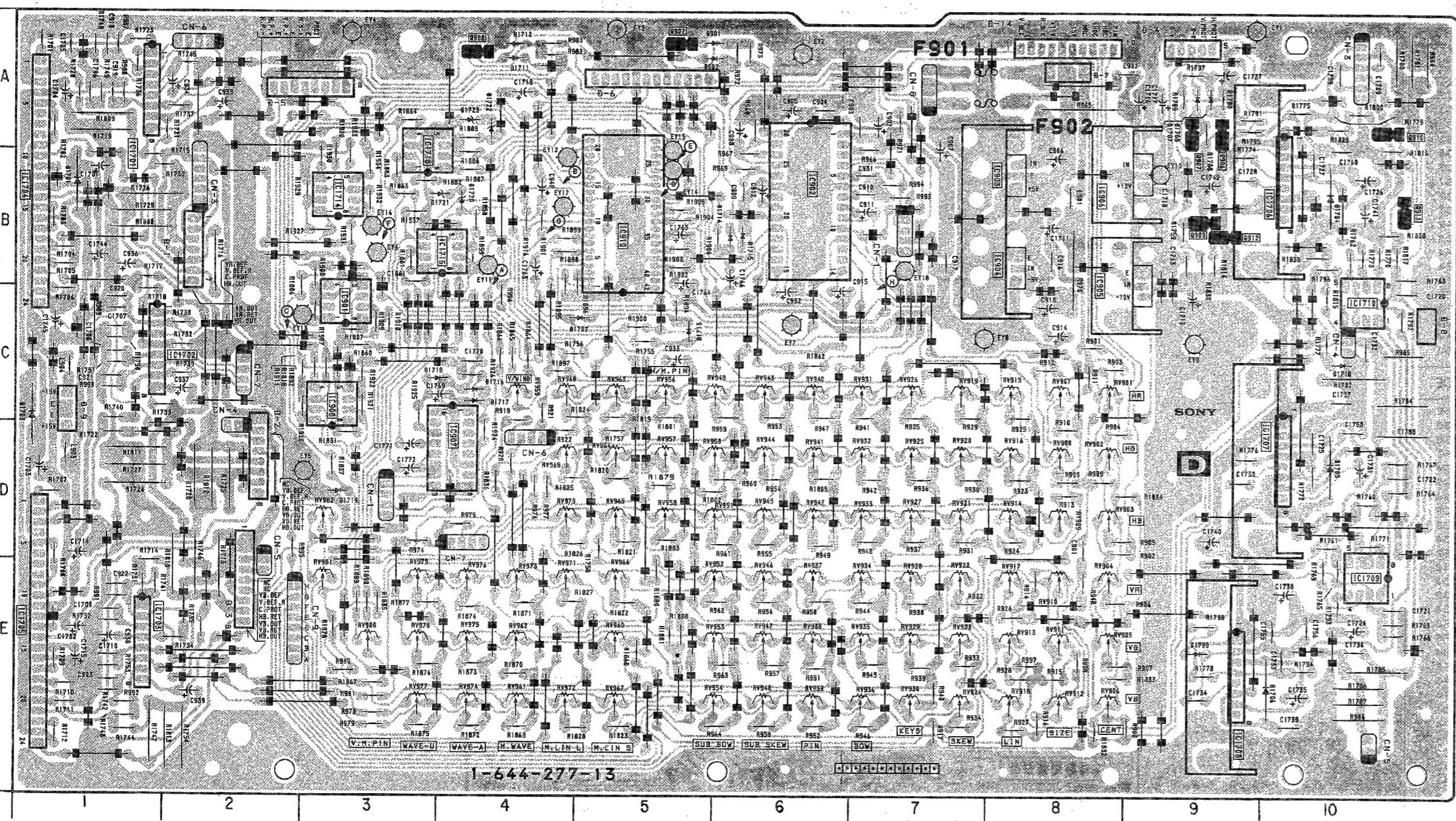


UT  
IN/OUT TERMINAL  
SD TERMINAL

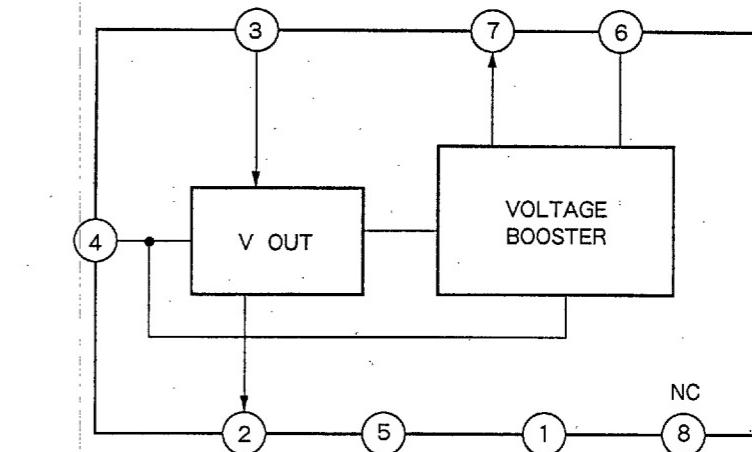


**D** [REGISTRATION,  
DEFLECTION V-OUT,  
SUB-OUT.]

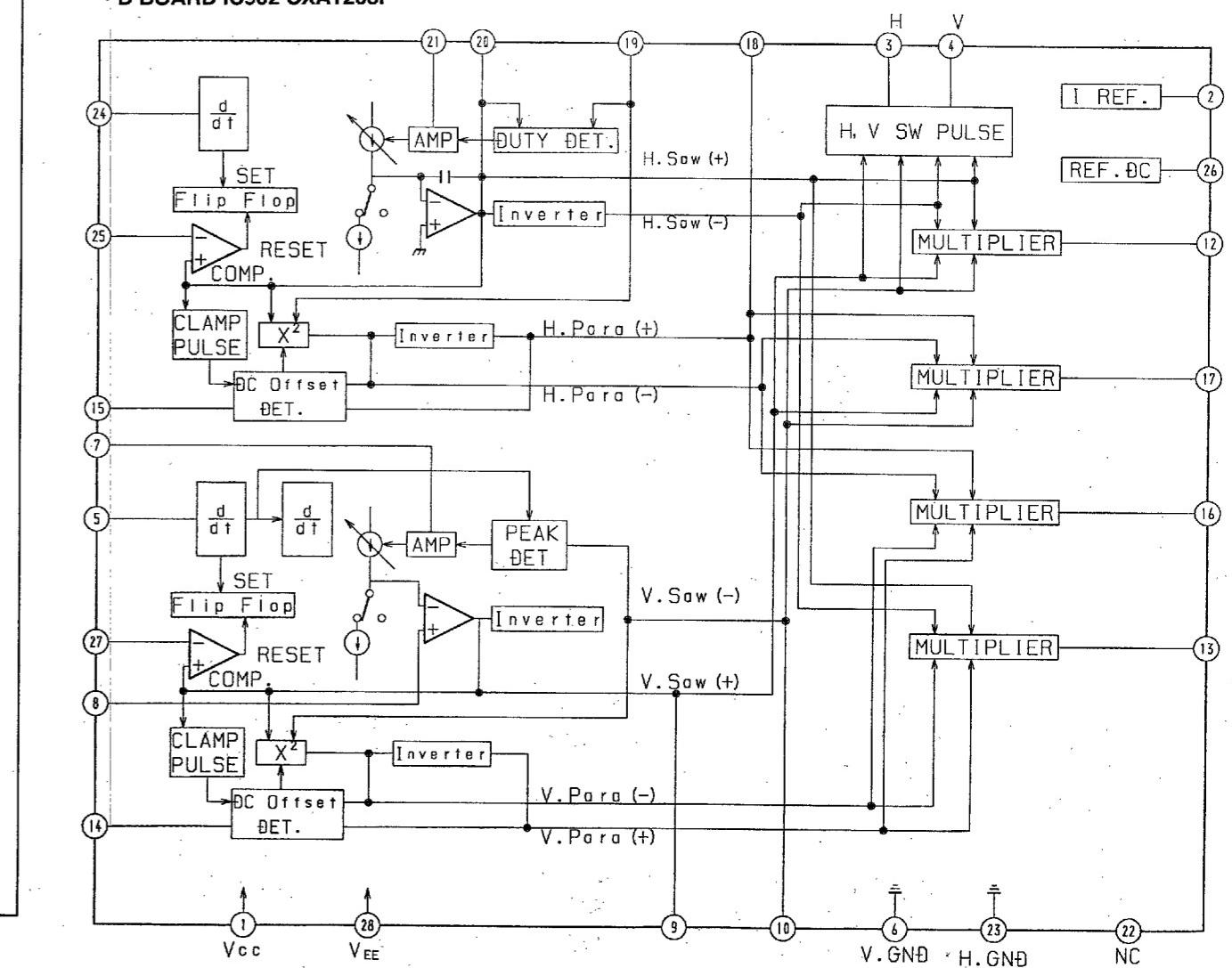
- D BOARD -



• D BOARD IC1706,1707,1708  $\mu$  PC1498H



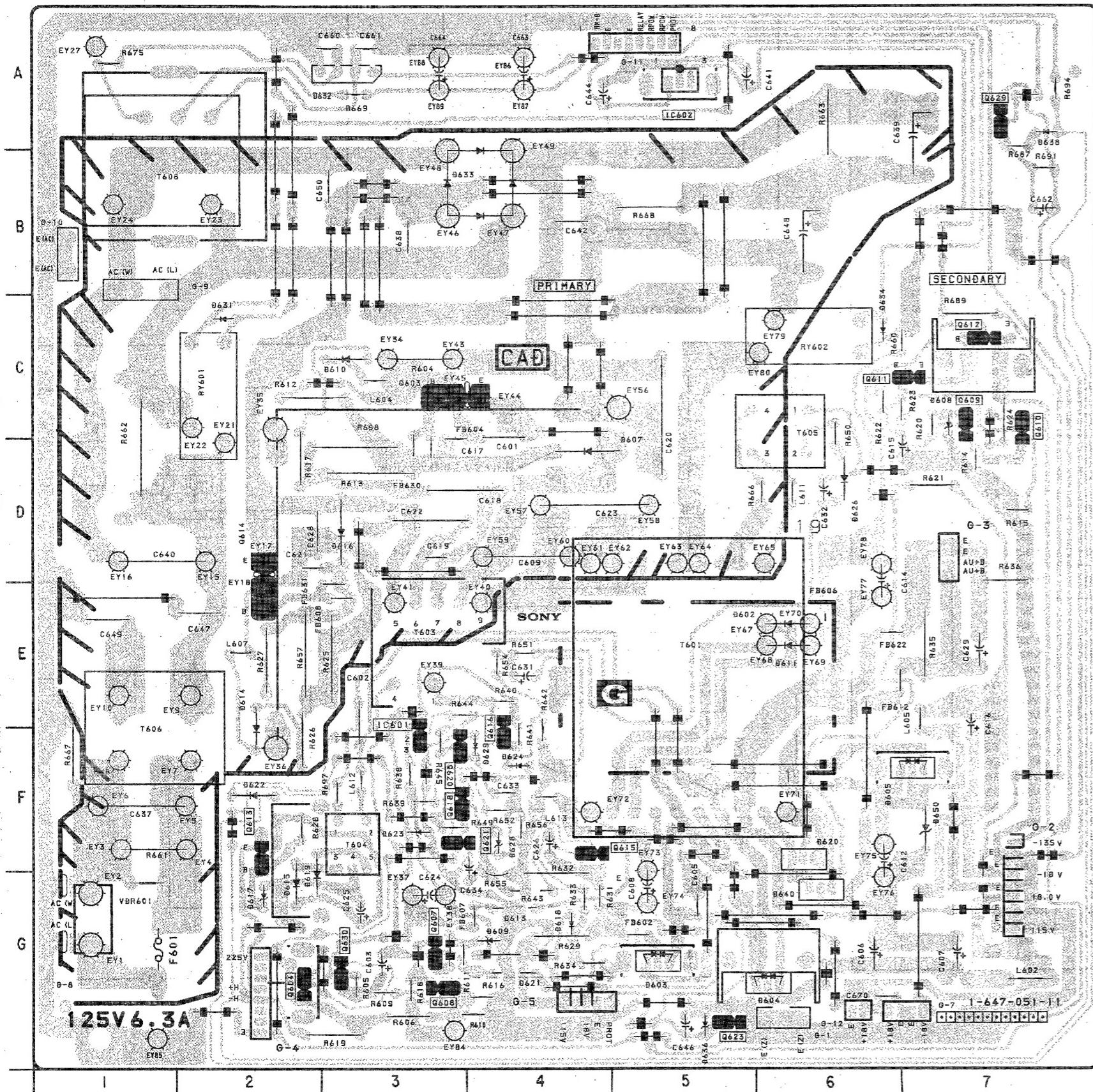
• D BOARD IC902 CXA1268P



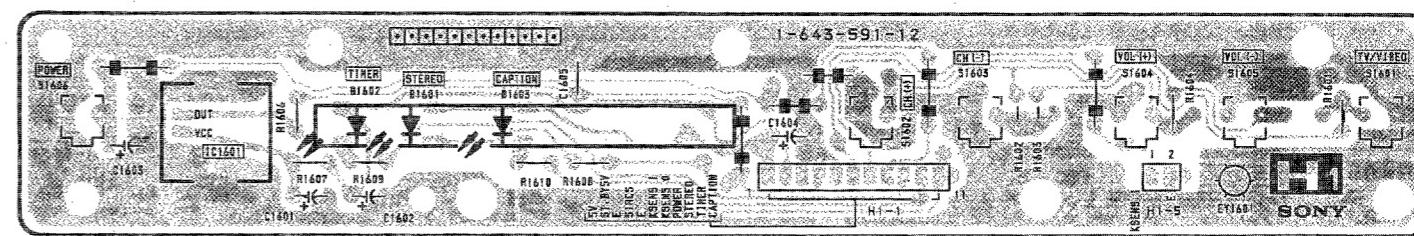
IC	VARIABLE RESISTOR
IC901 C-3	RV901 C-9
IC902 B-6	RV902 D-9
IC903 B-8	RV903 D-9
IC904 B-8	RV904 E-9
IC905 B-9	RV905 D-9
IC906 B-9	RV906 E-9
IC907 D-4	RV907 C-8
IC908 C-3	RV908 D-8
IC910 B-5	RV909 D-8
IC1701 A-1	RV910 E-8
IC1702 C-2	RV911 E-8
IC1703 E-1	RV912 E-8
IC1704 B-1	RV913 E-8
IC1705 E-1	RV914 D-8
IC1706 B-10	RV915 C-8
IC1707 D-10	RV916 D-8
IC1708 E-9	RV917 E-8
IC1709 E-10	RV918 E-8
IC1710 C-10	RV919 C-7
IC1714 B-3	RV920 D-7
IC1715 B-4	RV921 D-7
IC1718 B-4	RV922 E-7
RV923 E-7	RV924 E-7
RV925 D-7	RV926 C-7
RV927 D-7	RV928 E-7
RV929 E-7	RV930 E-7
Q902 A-5	RV931 C-7
Q906 A-9	RV932 D-7
Q907 A-9	RV933 D-7
Q908 A-4	RV934 E-7
Q909 D-9	RV935 E-7
Q910 A-10	RV936 E-7
Q911 B-10	RV937 E-6
Q912 B-9	RV938 E-6
DIODE	RV939 E-6
D901 A-6	RV940 C-6
D902 A-6	RV941 D-6
D1701 B-1	RV942 D-6
D1702 C-5	RV943 C-6
D1703 C-1	RV944 D-6
D1704 B-10	RV945 D-6
D1705 D-10	RV946 E-6
D1706 E-10	RV947 E-6
D1707 A-9	RV948 E-6
D1708 A-9	RV949 C-6
D1709 E-9	RV950 D-6
D1710 C-10	RV951 D-6
D1711 A-4	RV952 E-6
D1712 A-4	RV953 E-6
D1713 C-5	RV954 E-6
D1714 B-6	RV955 C-5
D1715 B-6	RV956 D-5
D1716 C-4	RV957 D-5
D1718 C-4	RV958 D-5
D1720 B-4	RV959 C-4
D1721 B-4	RV960 E-5
D1722 A-4	RV961 E-4

**G** [POWER SUPPLY]    **H1** [USER CONTROL]    **H2** [USER CONTROL]    **DS** [SIN. WAVE. GEN.]

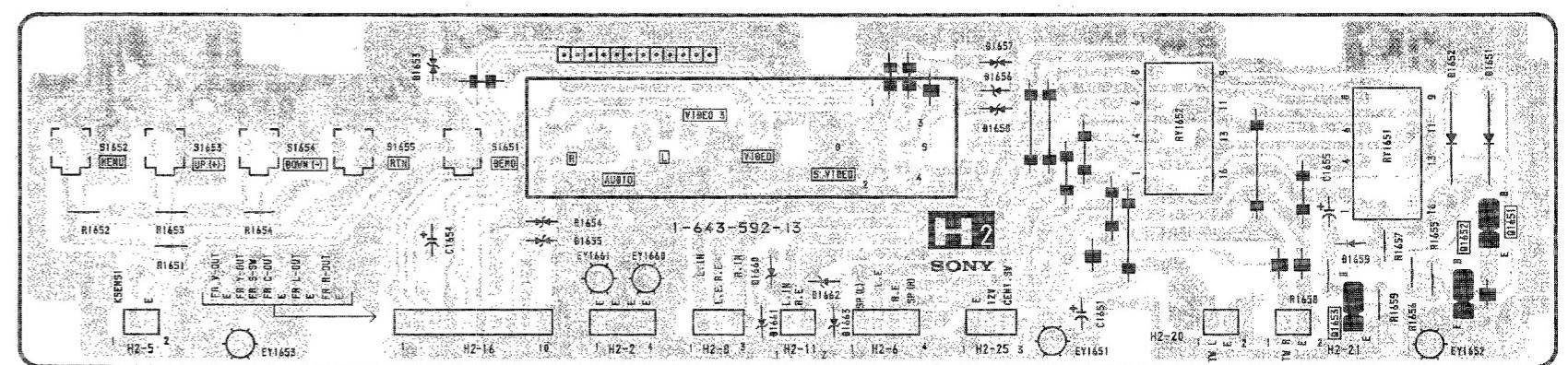
- G BOARD -



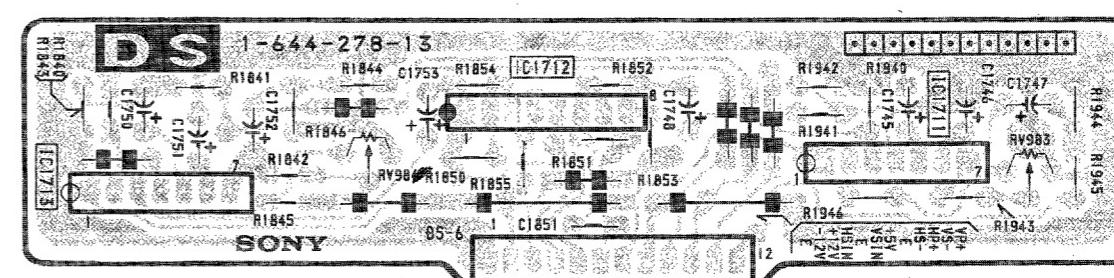
- H1 BOARD -



- H2 BOARD -



- DS BOARD -



A

B

1

1

1

1

1

1

10

10

3

K

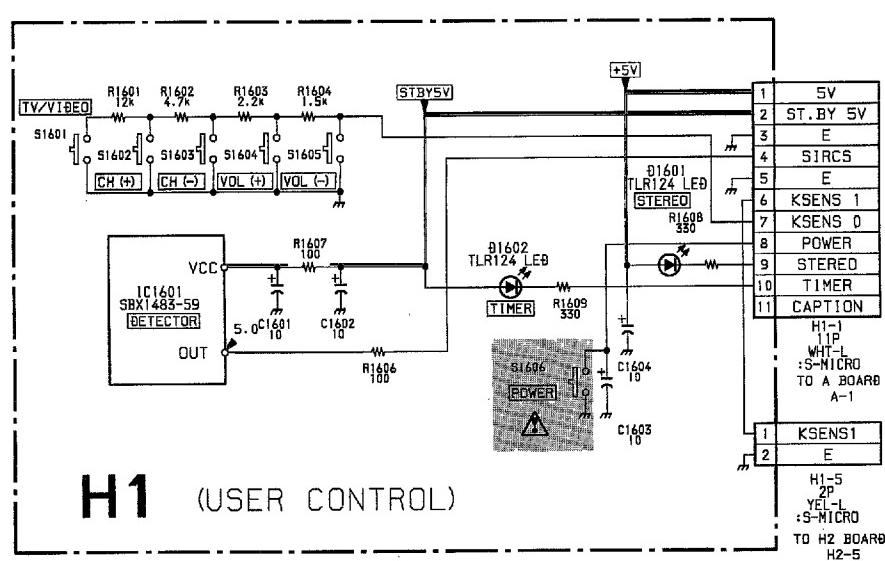
L

5

10

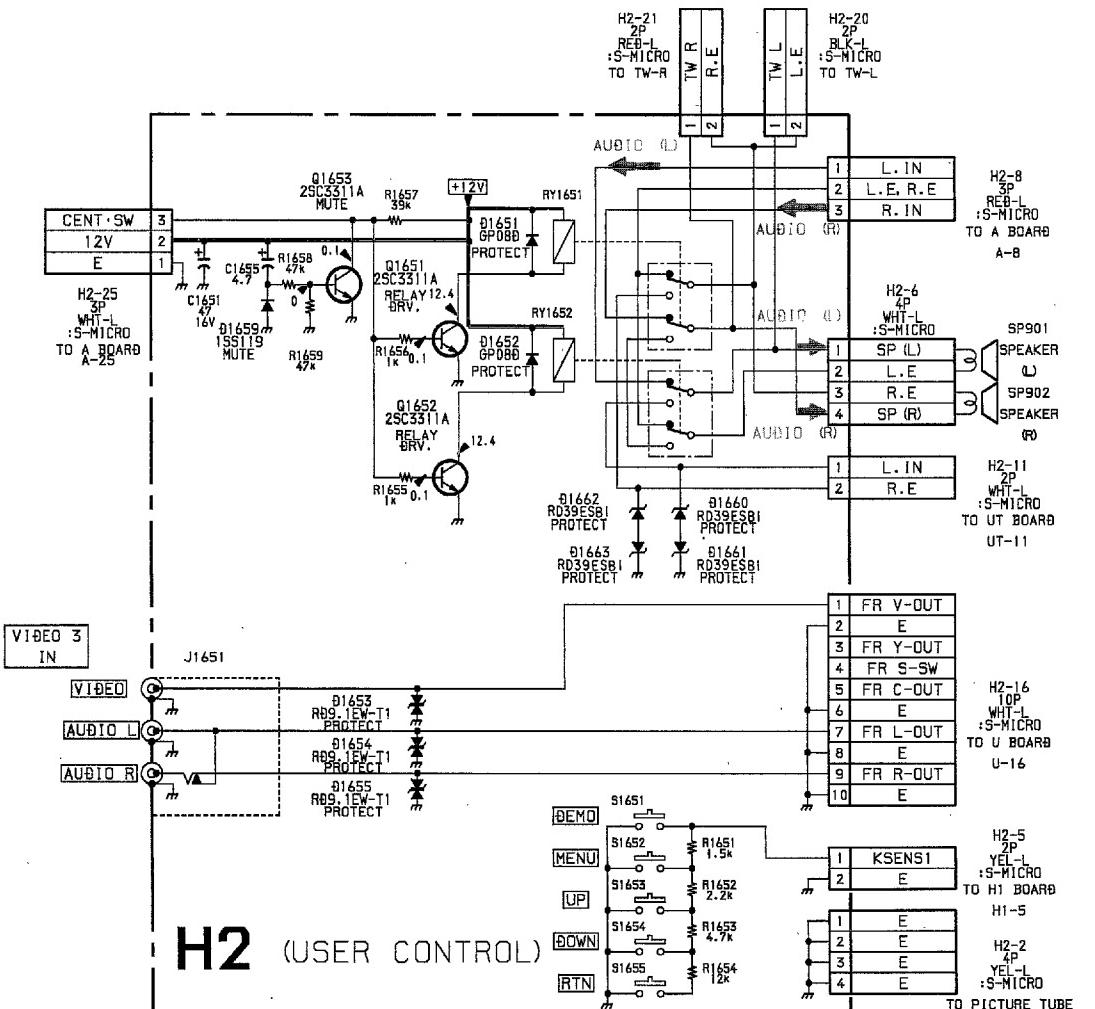
10

1

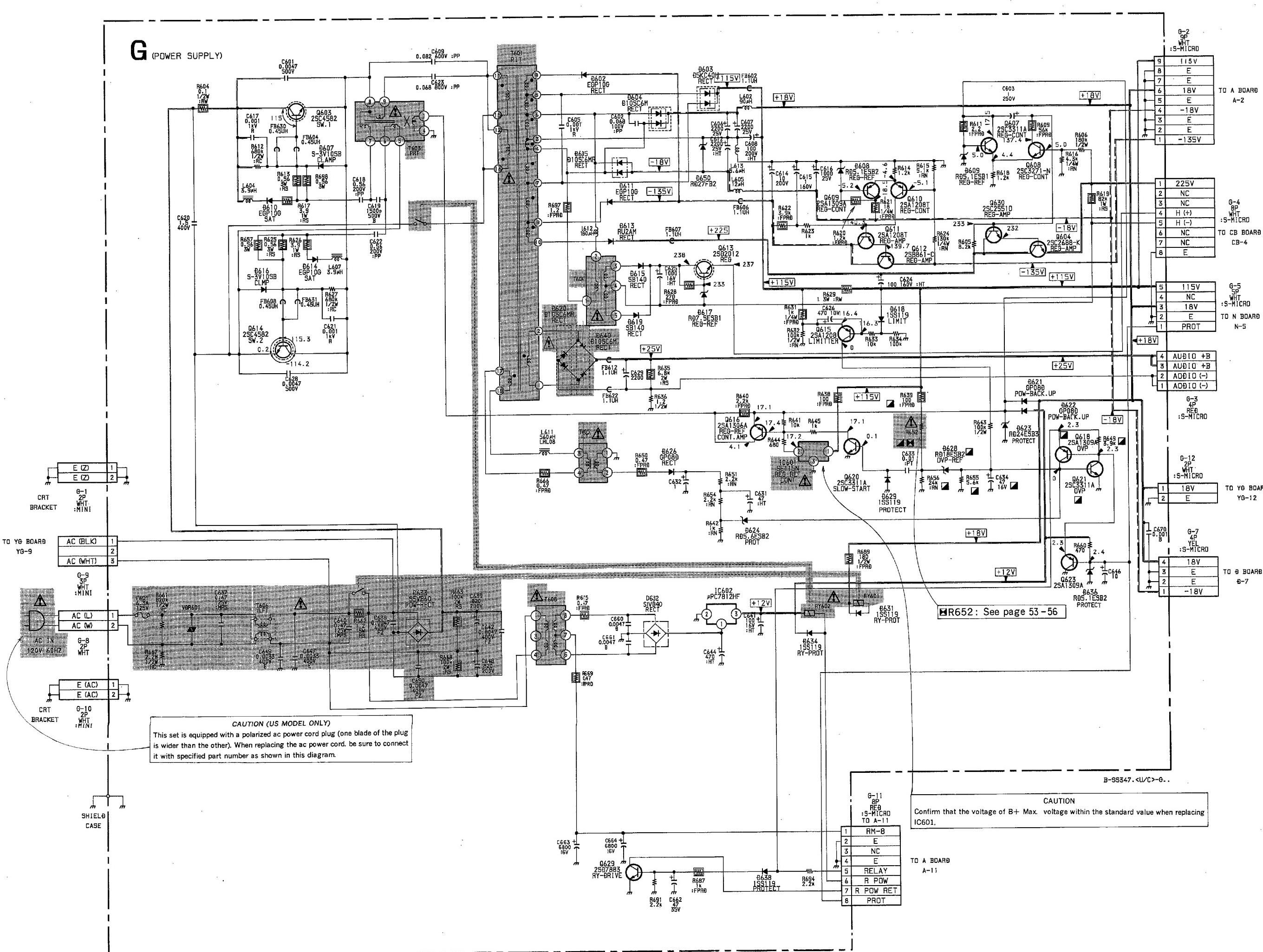
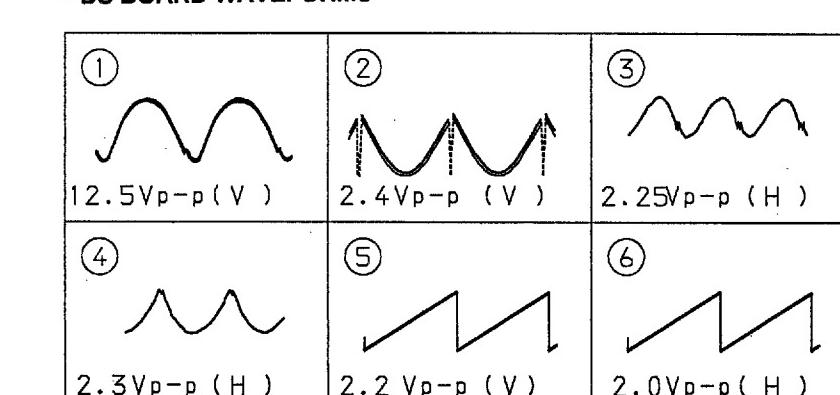


## H1 (USER CONTROL)

B-55347. <U/C>-H1.



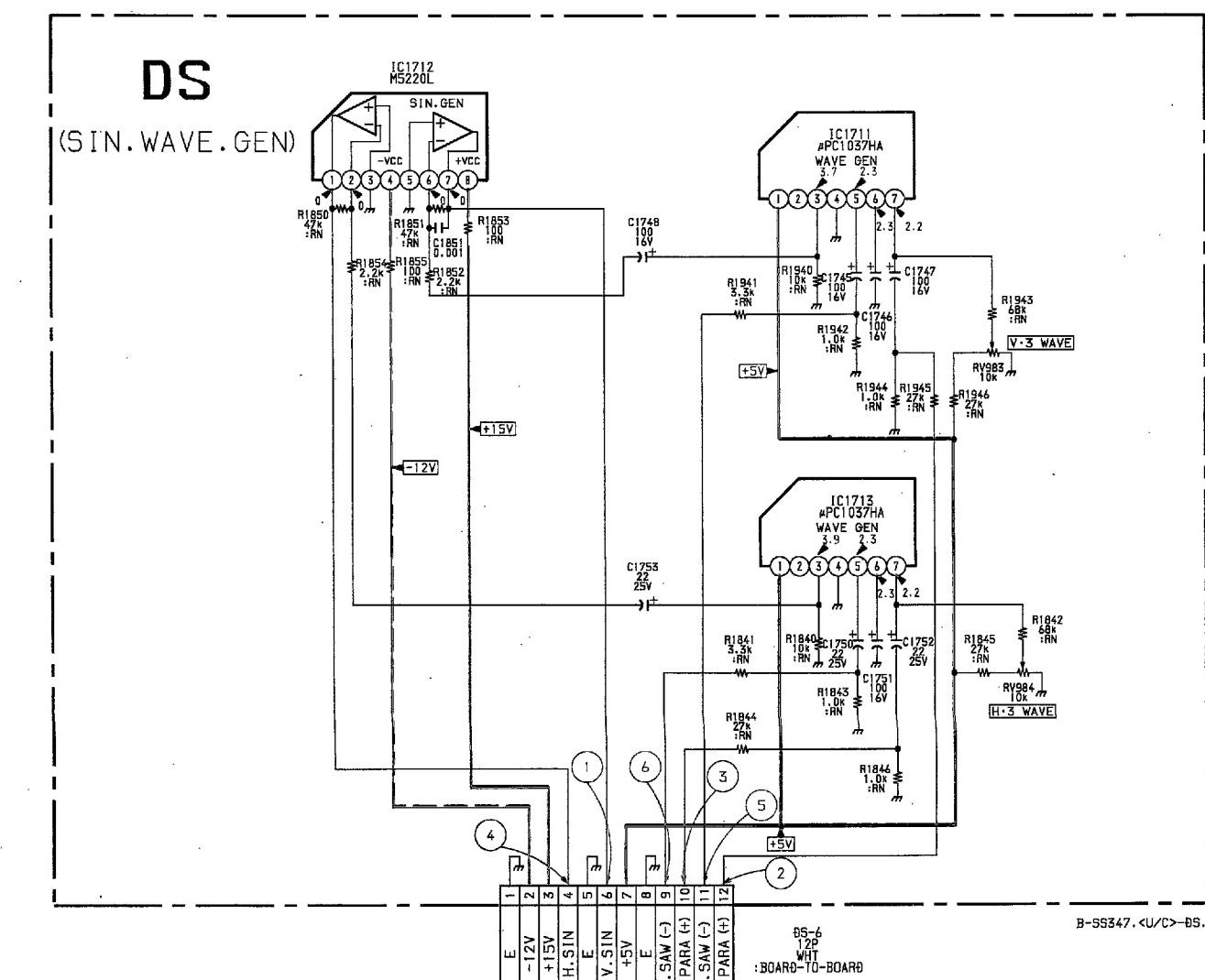
H2 (USER CONTR)



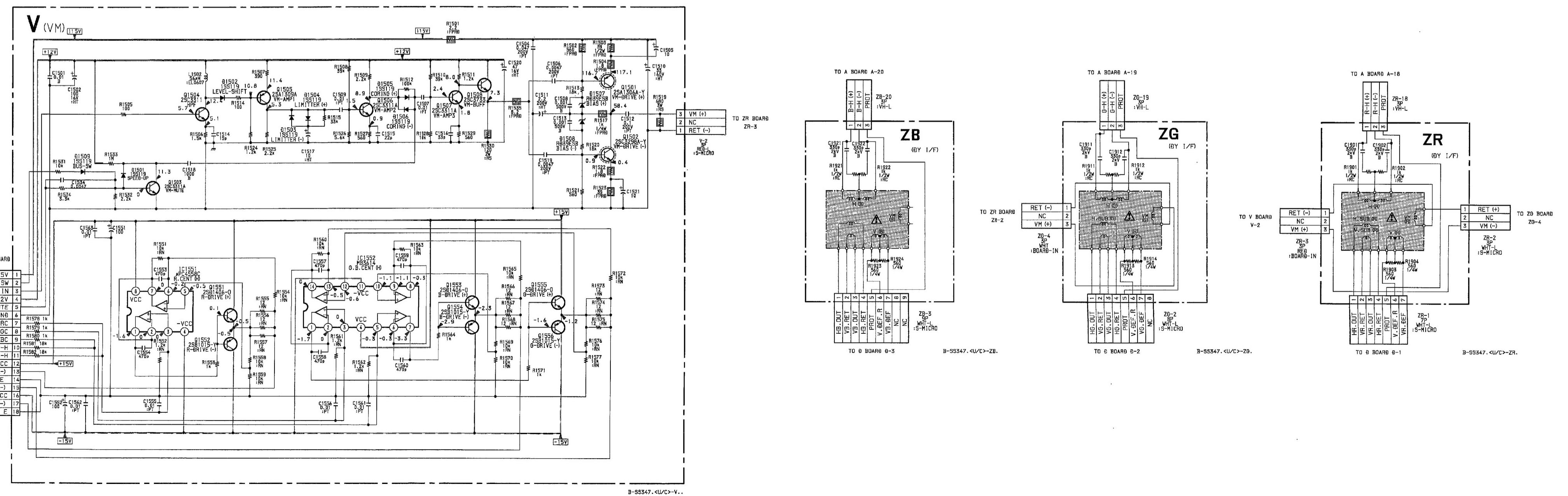
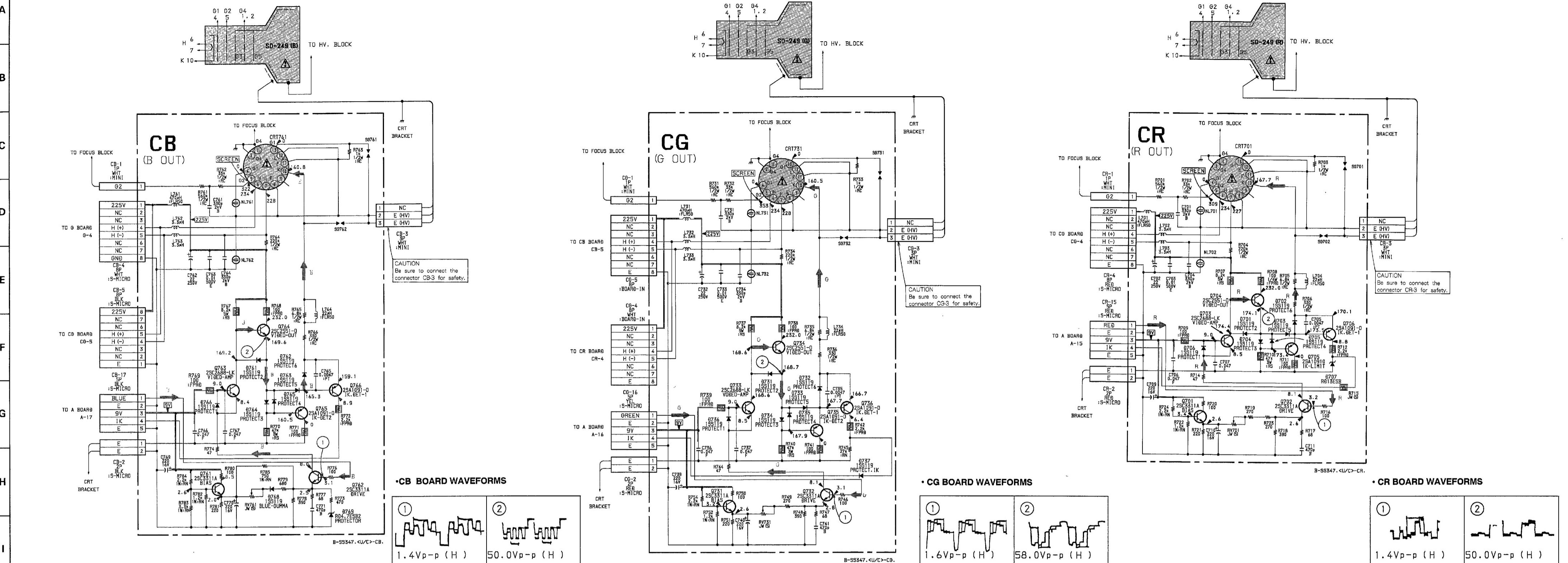
**CAUTION (US MODEL ONLY)**

This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

**CAUTION**  
Confirm that the voltage of B+ Max. voltage within the standard value when replace  
IC601

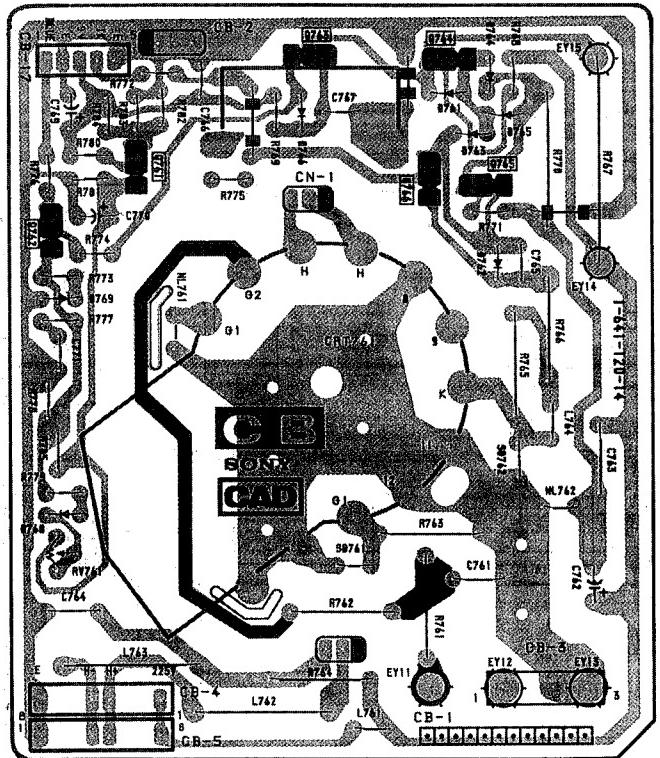


R-55347 4U/C>-DS

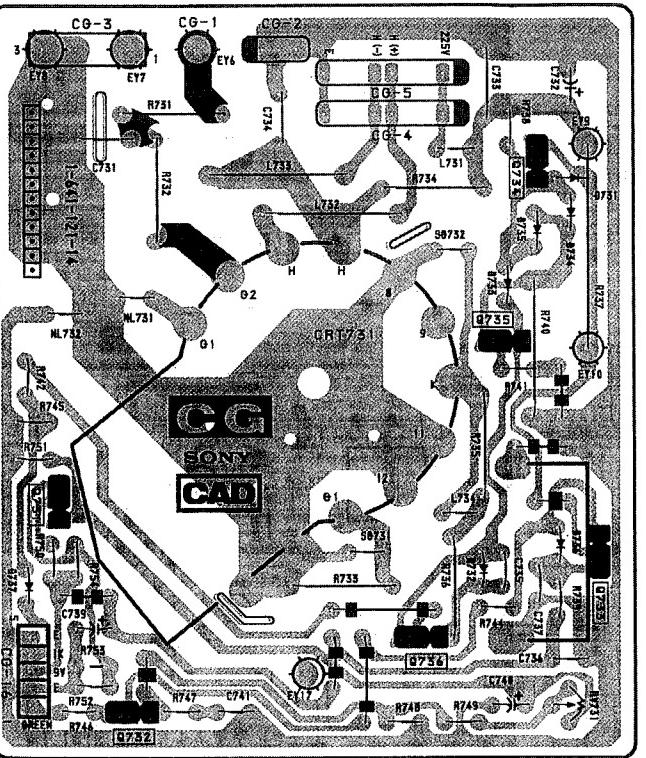


**CB** [B OUT]   **CG** [G OUT]   **CR** [R OUT]   **ZB** [DY I/F]   **ZG** [DY I/F]   **ZR** [DY I/F]   **V** [VM]

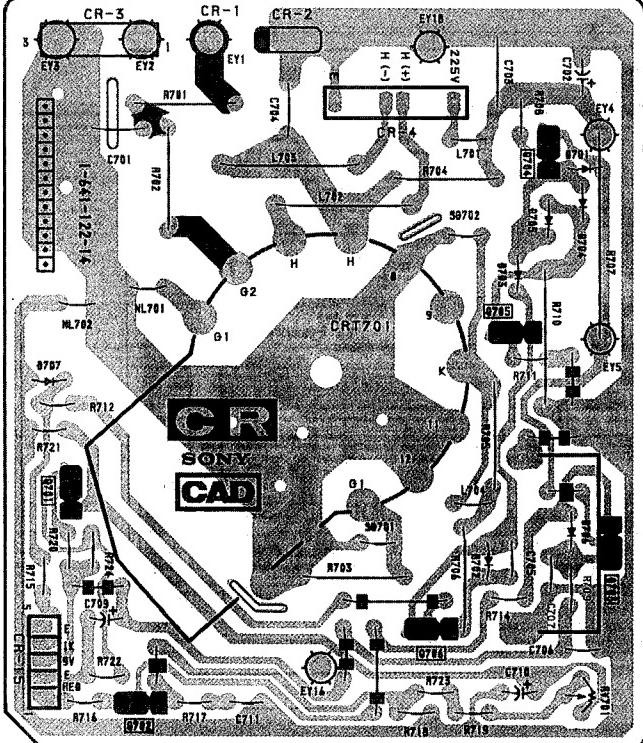
## — CB BOARD —



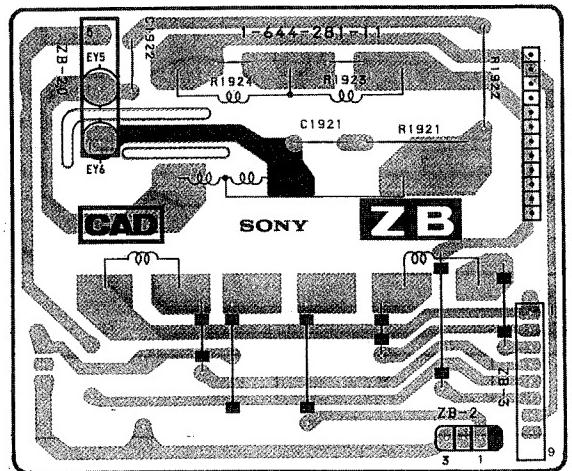
## — CG BOARD —



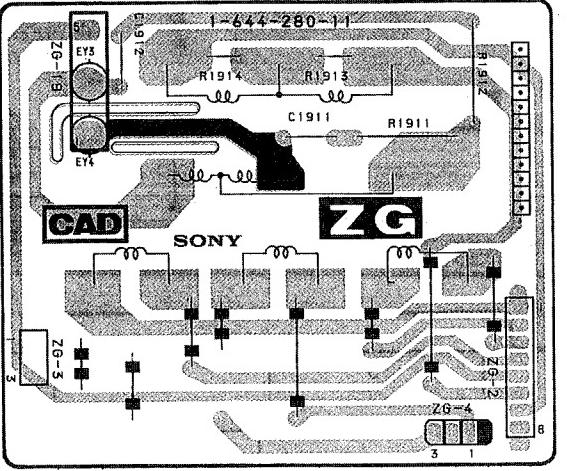
## — CR BOARD —



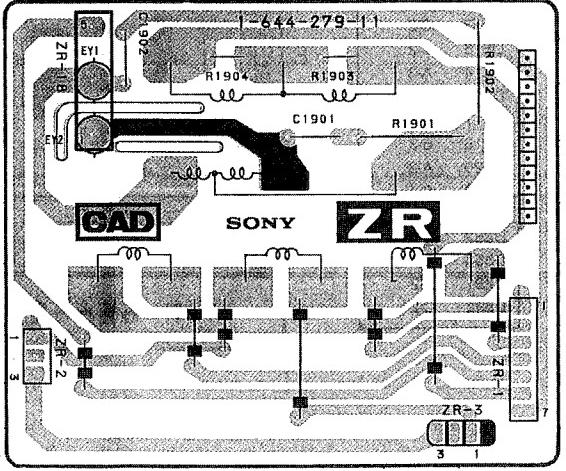
## — ZB BOARD —



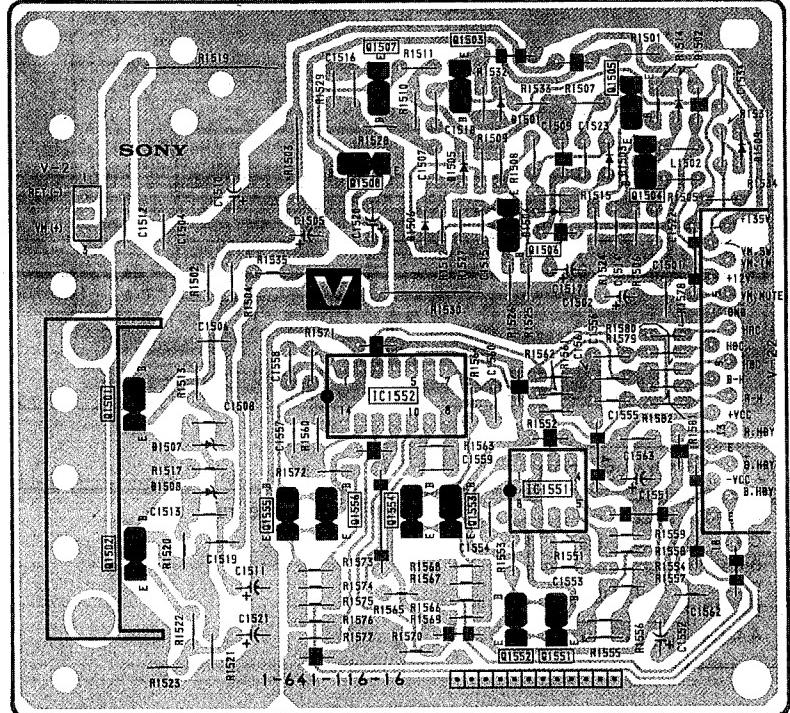
## — ZG BOARD —



## — ZR BOARD —

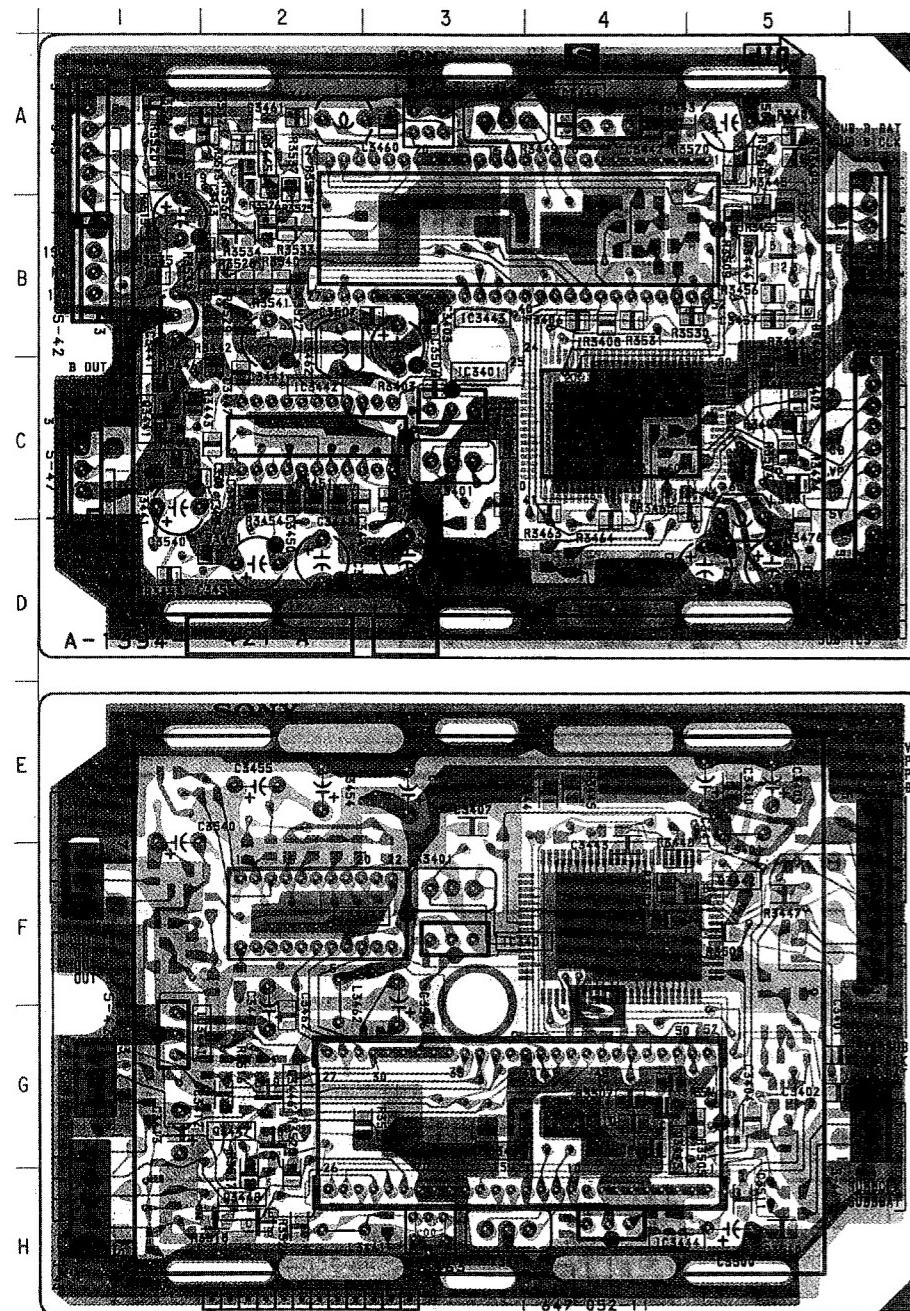


## — V BOARD —



**S** [SUB-CONTROL,  $\mu$ -CON,  
CLOSED CAPTAIN DECODER] **N** [H.V.]

— S BOARD —

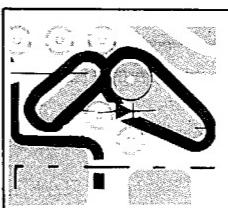
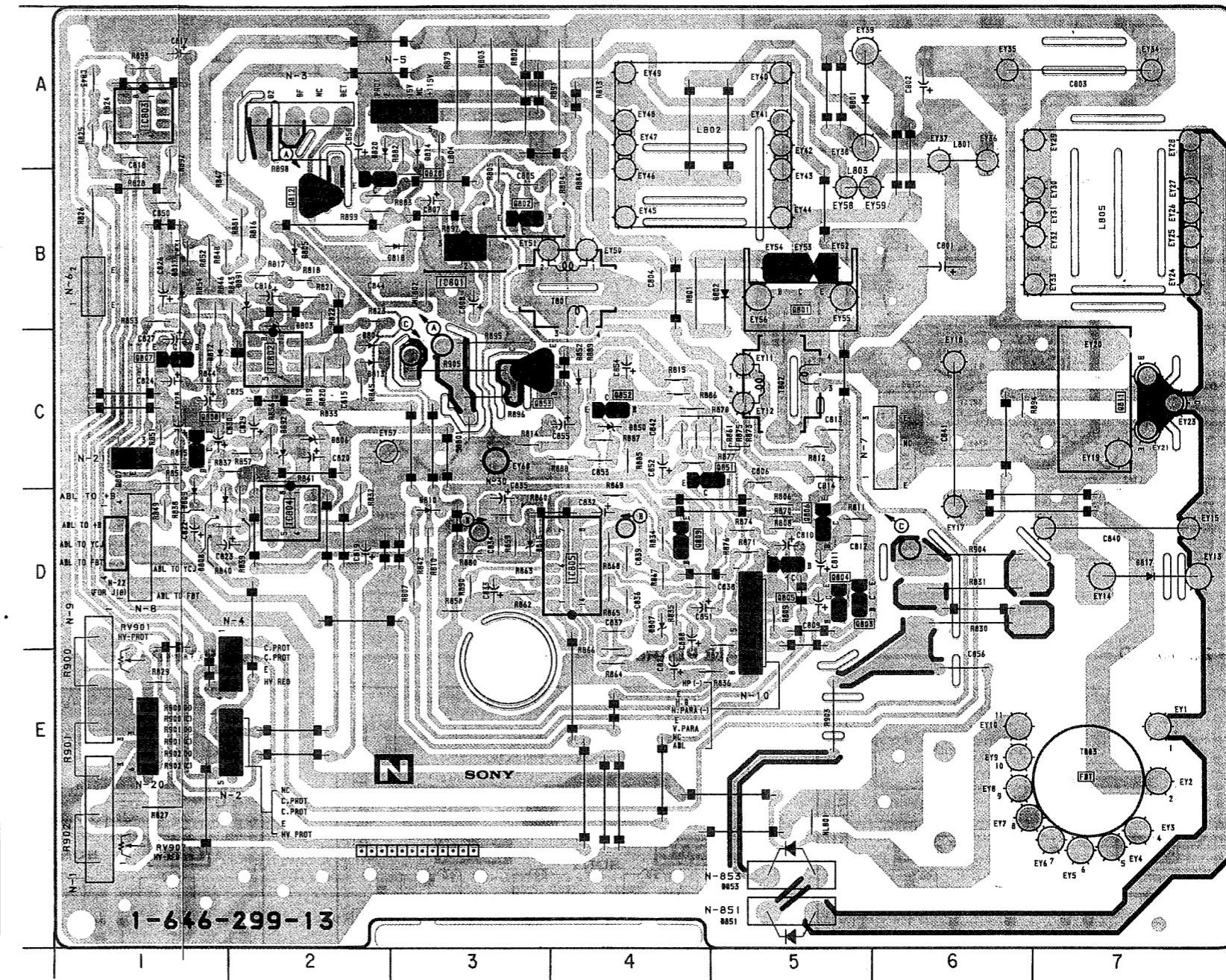


IC	TRANSISTOR
IC3401 C-3, F-1	Q3441 C-1
IC3402 C-3	Q3444 B-5
IC3441 B-1, G-1	
IC3442 C-2, F2	
IC3443 B-3, G-3	
IC3444 A-4, H-4	D3444 B-5

■ : Pattern from the side which enables seeing.  
■ : Pattern of the rear side.

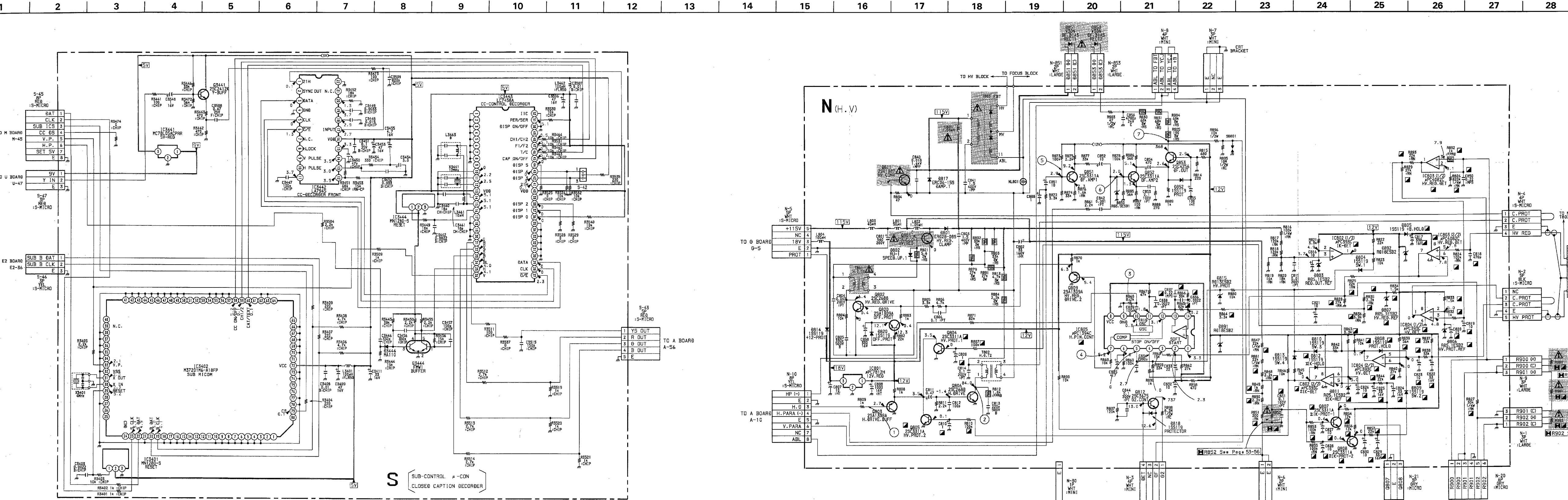
— N BOARD —

IC
IC801 B-3
IC802 C-2
IC803 A-1
IC804 D-2
IC805 D-4
TRANSISTOR
Q801 B-5
Q802 B-3
Q803 D-6
Q804 D-5
Q805 D-5
Q806 D-5
Q807 C-1
Q808 C-1
Q809 D-4
Q811 C-7
Q812 B-2
Q820 B-3
Q851 C-5
Q852 C-4
Q853 C-4
DIODE
D801 A-6
D802 B-5
D803 B-2
D804 C-2
D805 B-2
D806 C-2
D807 D-4
D808 D-2
D809 D-1
D810 D-3
D811 B-1
D812 C-2
D813 C-2
D814 A-3
D815 D-3
D817 D-7
D818 B-3
D820 A-3
D850 C-4
D851 E-5
D852 C-4
D853 E-5
D891 B-2
D892 C-2



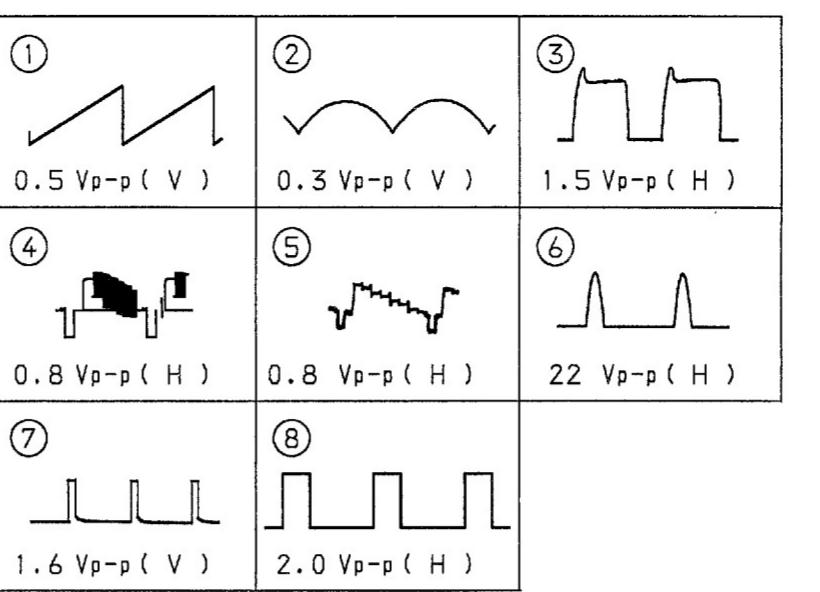
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

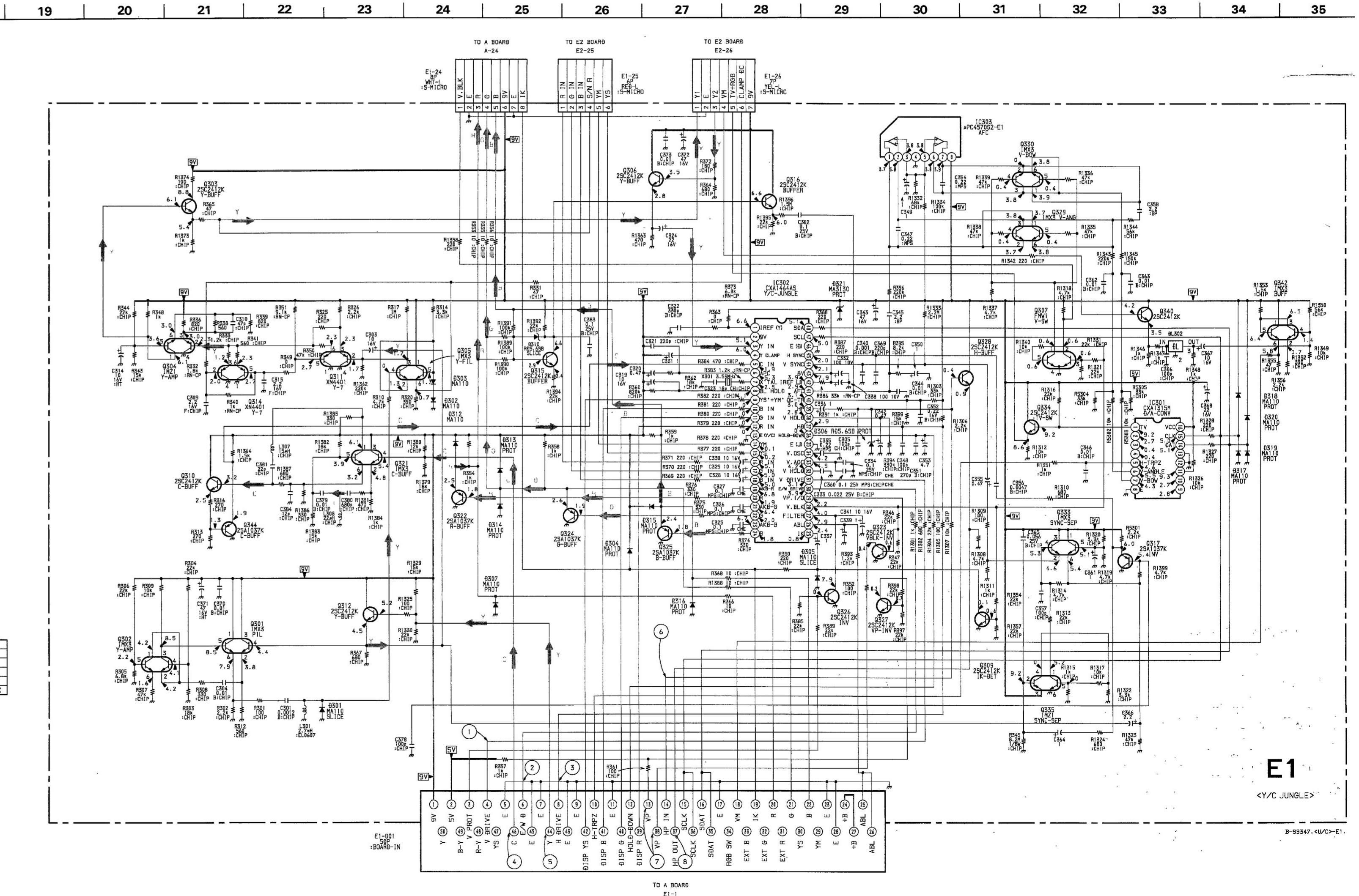
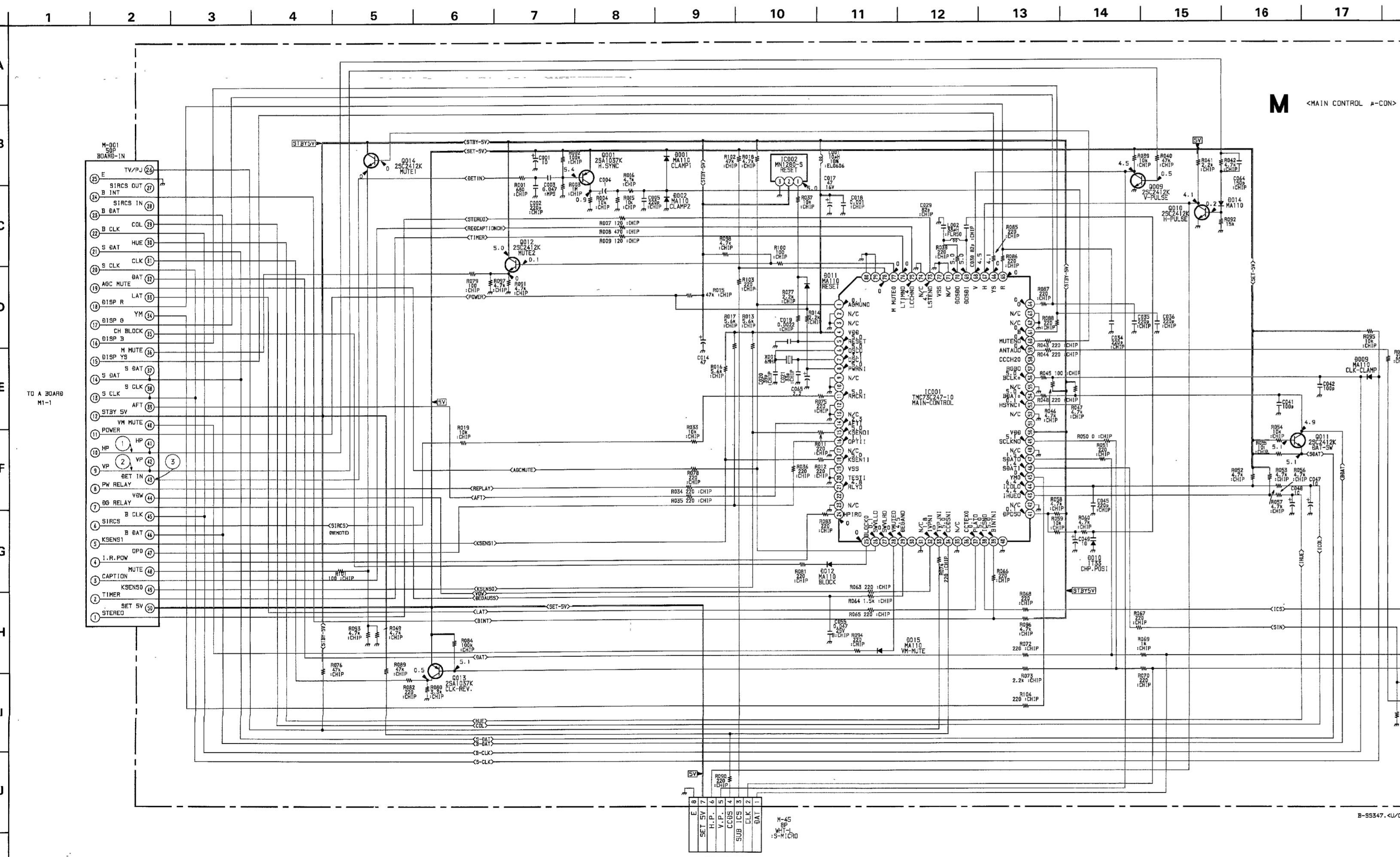
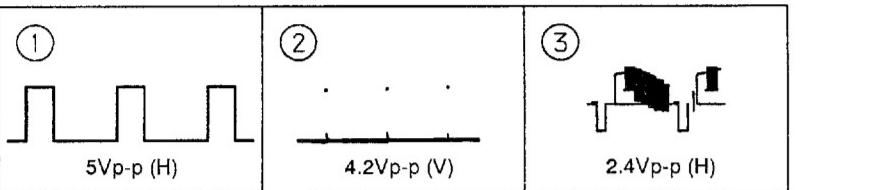


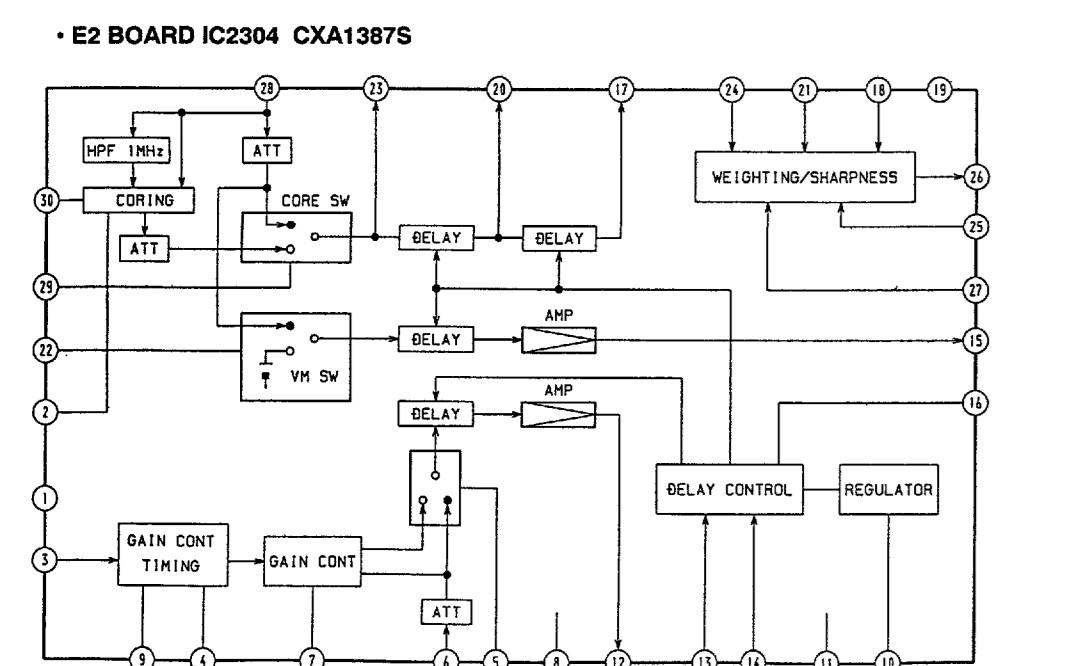
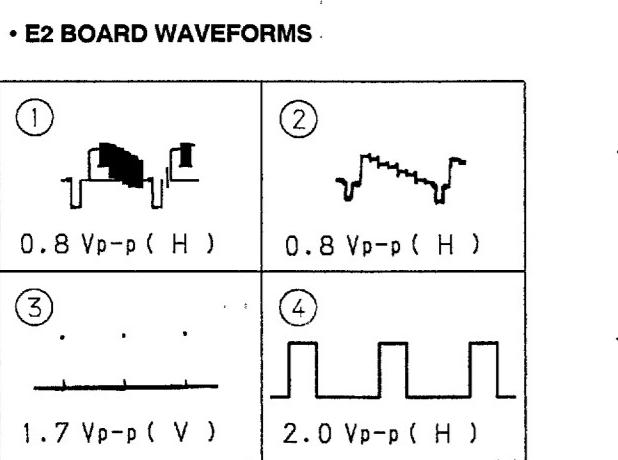
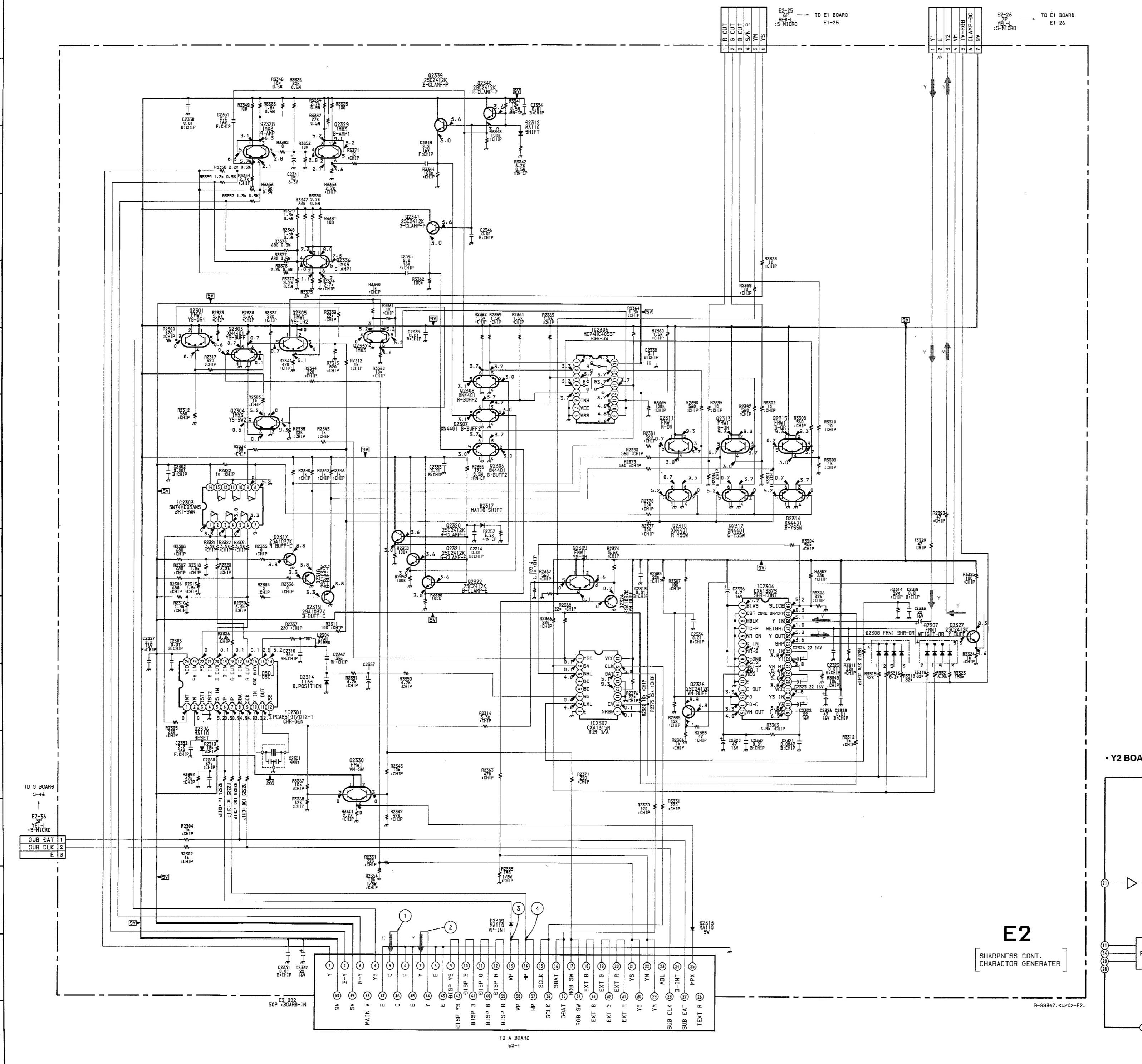


- E1 BOARD WAVEFORMS



- M BOARD WAVEFORMS

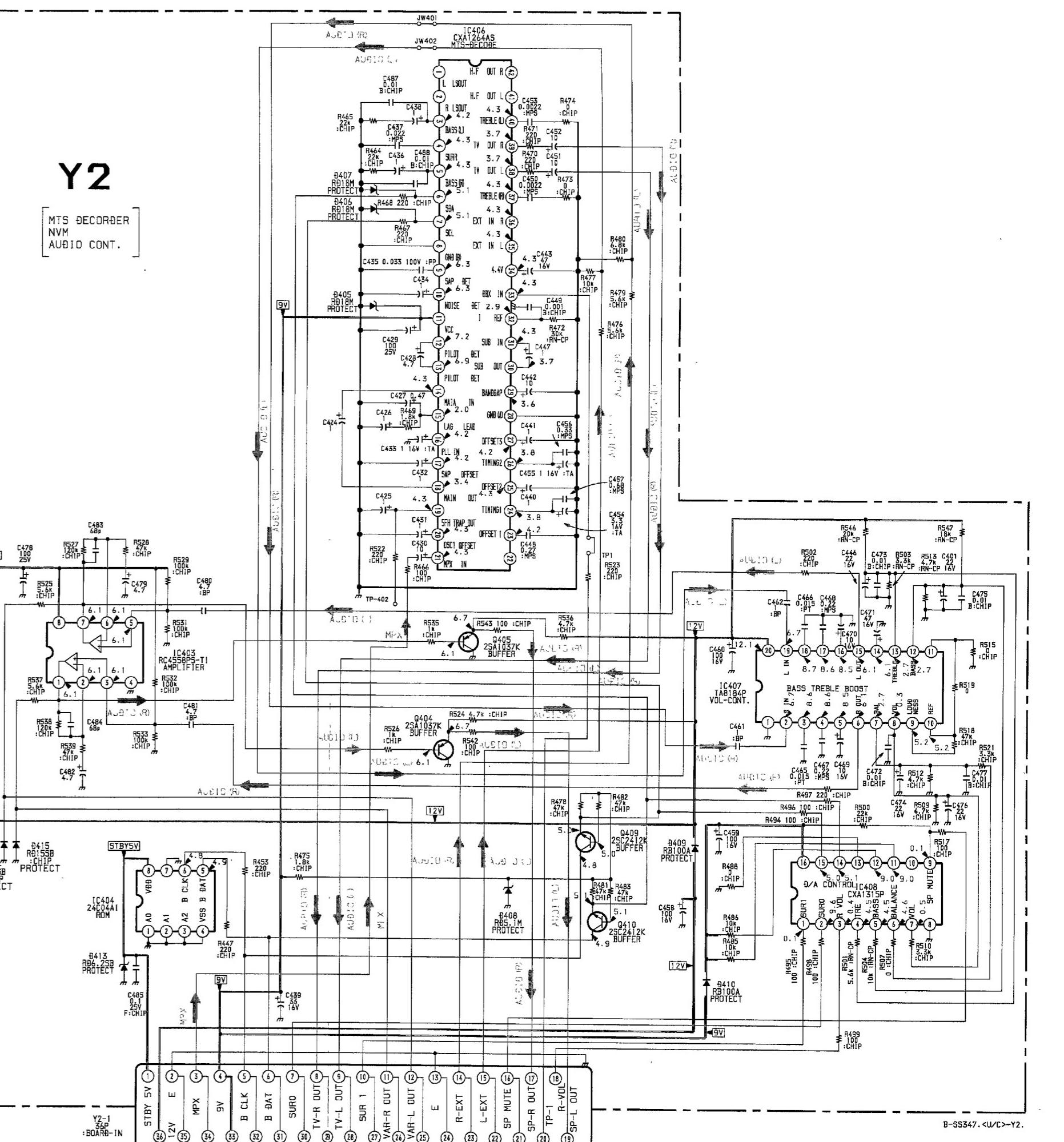




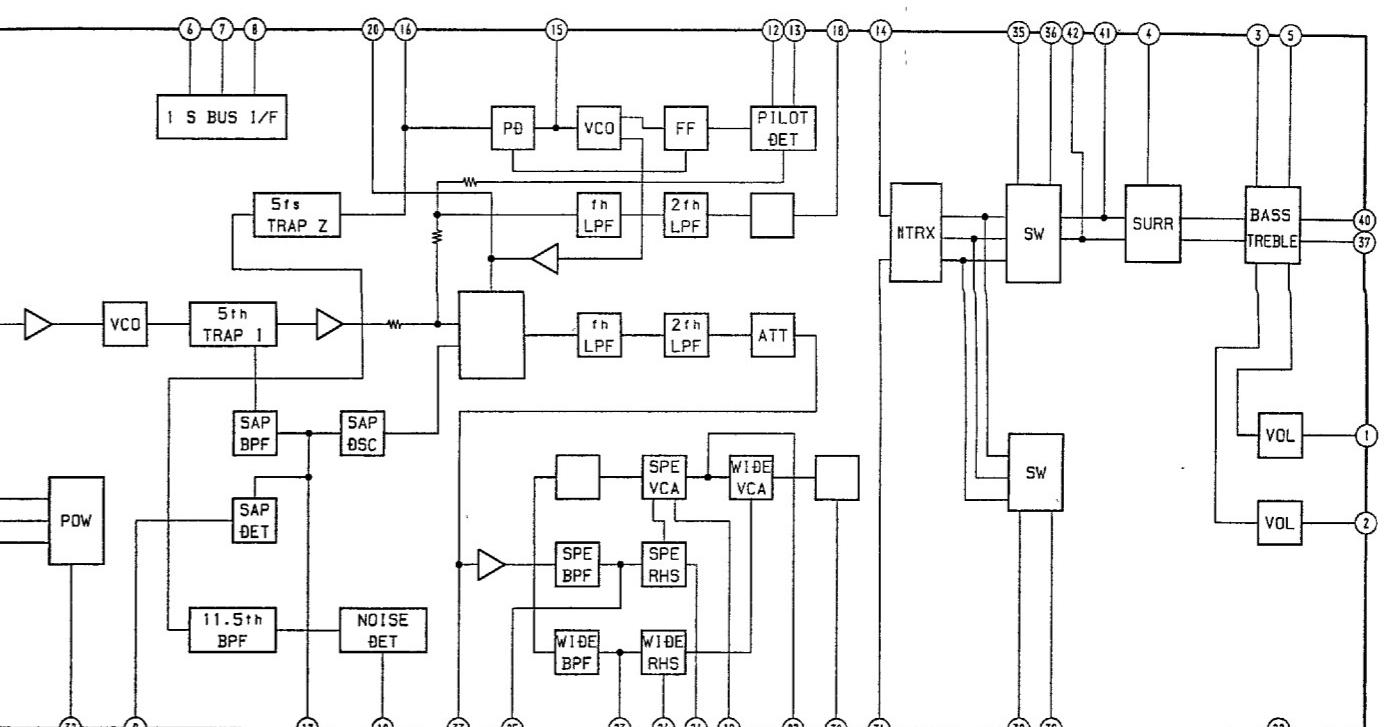
T.  
ERATER ]

Y2

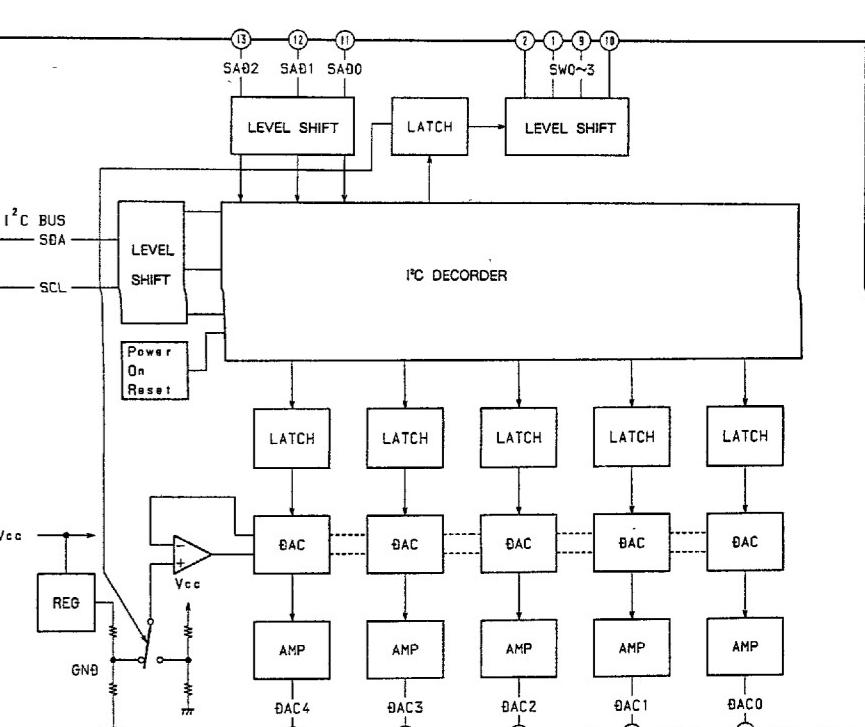
[ MTS DECODER  
NVM  
AUDIO CONT. ]



2 BOARD IC406 CXA1264AS

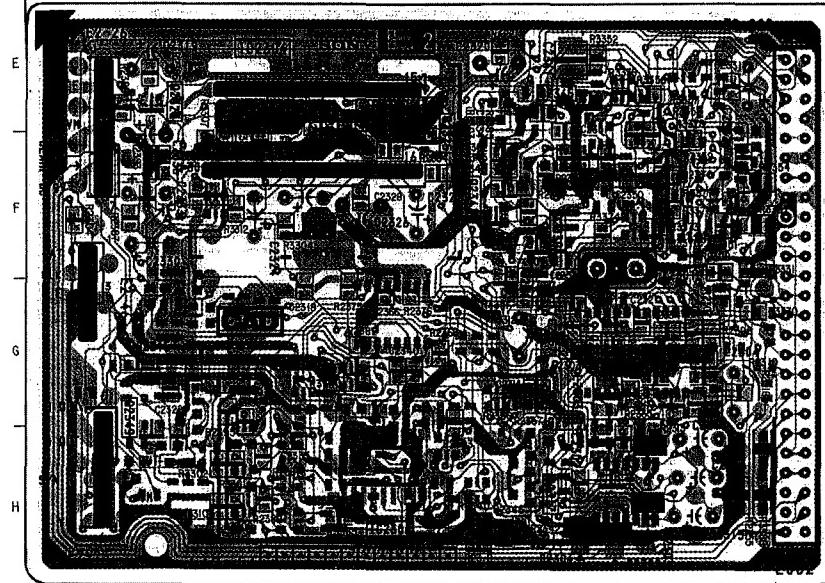
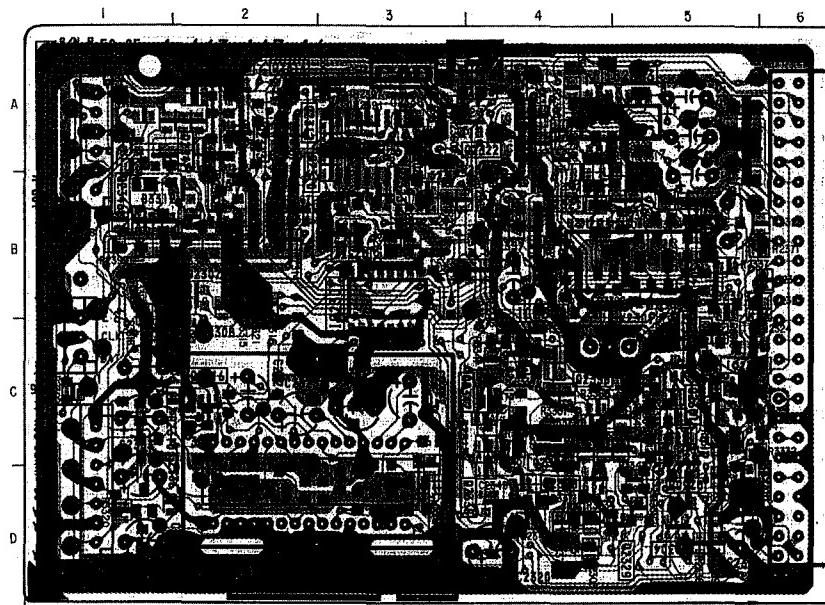


/2 BOARD IC408 CXA1315P



**E2**SHARPNESS CONT,  
CHARACTOR GENERATOR**Y2**MTS DECODER,  
NVM,  
AUDIO CONT

## — E2 BOARD —

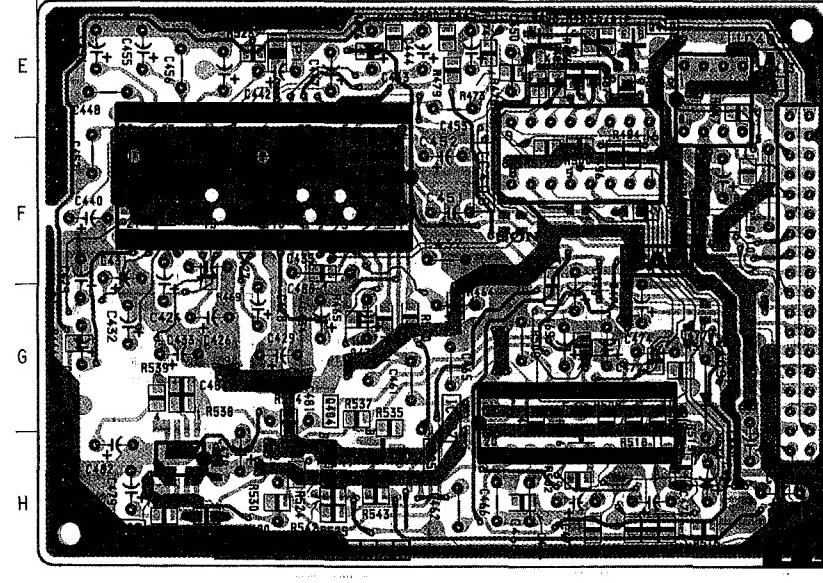
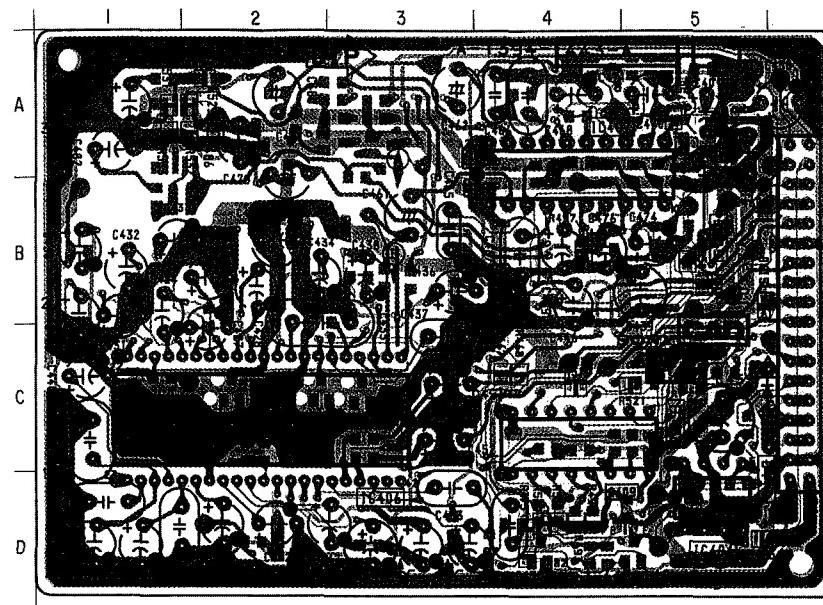


■ : Pattern from the side which enables seeing.

■ : Pattern of the rear side.

IC
IC2031 B-4
IC2303 A-5
IC2304 D-3, E-2
IC2306 H-3
IC2307 B-3
TRANSISTOR
Q2301 C-5
Q2303 C-5
Q2304 D-5
Q2305 C-5
Q2306 A-3
Q2307 B-4
Q2308 A-3
Q2309 B-2
Q2310 A-2
Q2311 A-2
Q2312 A-2
Q2313 A-2
Q2314 A-2
Q2315 A-2
Q2317 H-4
Q2318 G-4
Q2319 G-5
Q2320 A-4
Q2321 A-4
Q2322 A-4
Q2324 B-3
Q2326 E-1
Q2327 E-2
Q2328 D-4
Q2329 D-4
Q2330 C-4
Q2336 C-5
Q2337 B-3
Q2339 F-4
Q2340 F-4
Q2341 F-4
DIODE
D2306 C-5
D2307 B-2
D2308 B-2
D2309 B-5
D2312 C-4
D2313 C-4
D2314 B-5
D2317 A-4

## — Y2 BOARD —

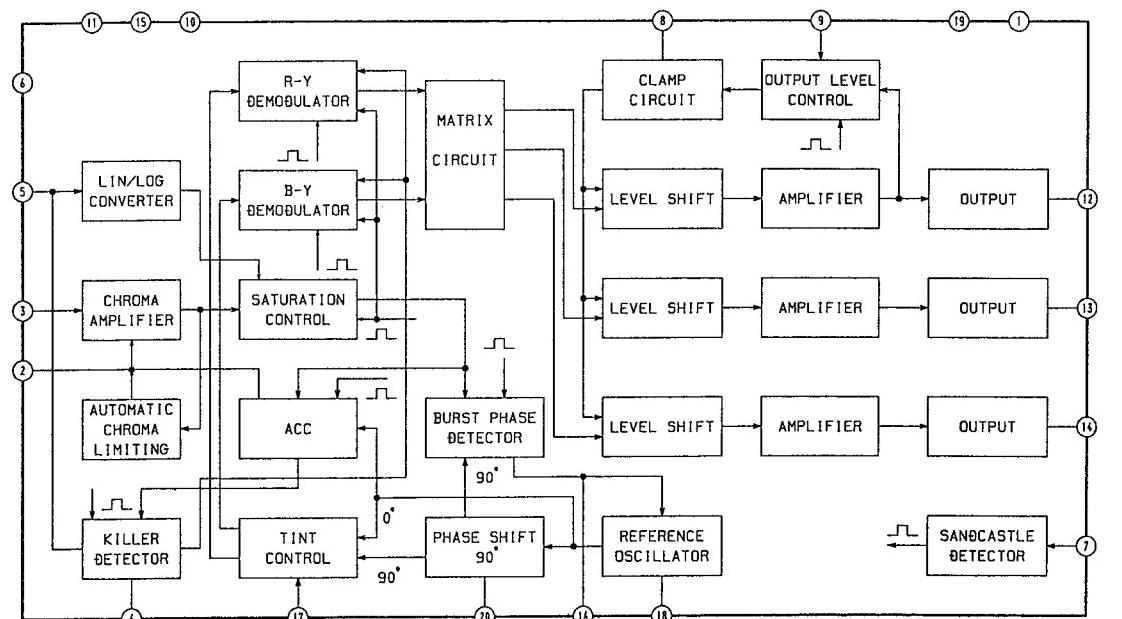


IC
IC403 H-1
IC404 D-5, E-5
IC406 C-2, F-2
IC407 A-4, G-4
IC408 C-4, F-4
TRANSISTOR
Q404 H-3
Q405 H-3
Q409 D-5
Q410 E-5
DIODE
D405 F-2
D406 F-2
D407 F-3
D408 E-4
D409 A-5
D410 C-5, F-5
D413 E-6
D414 F-4
D415 B-5

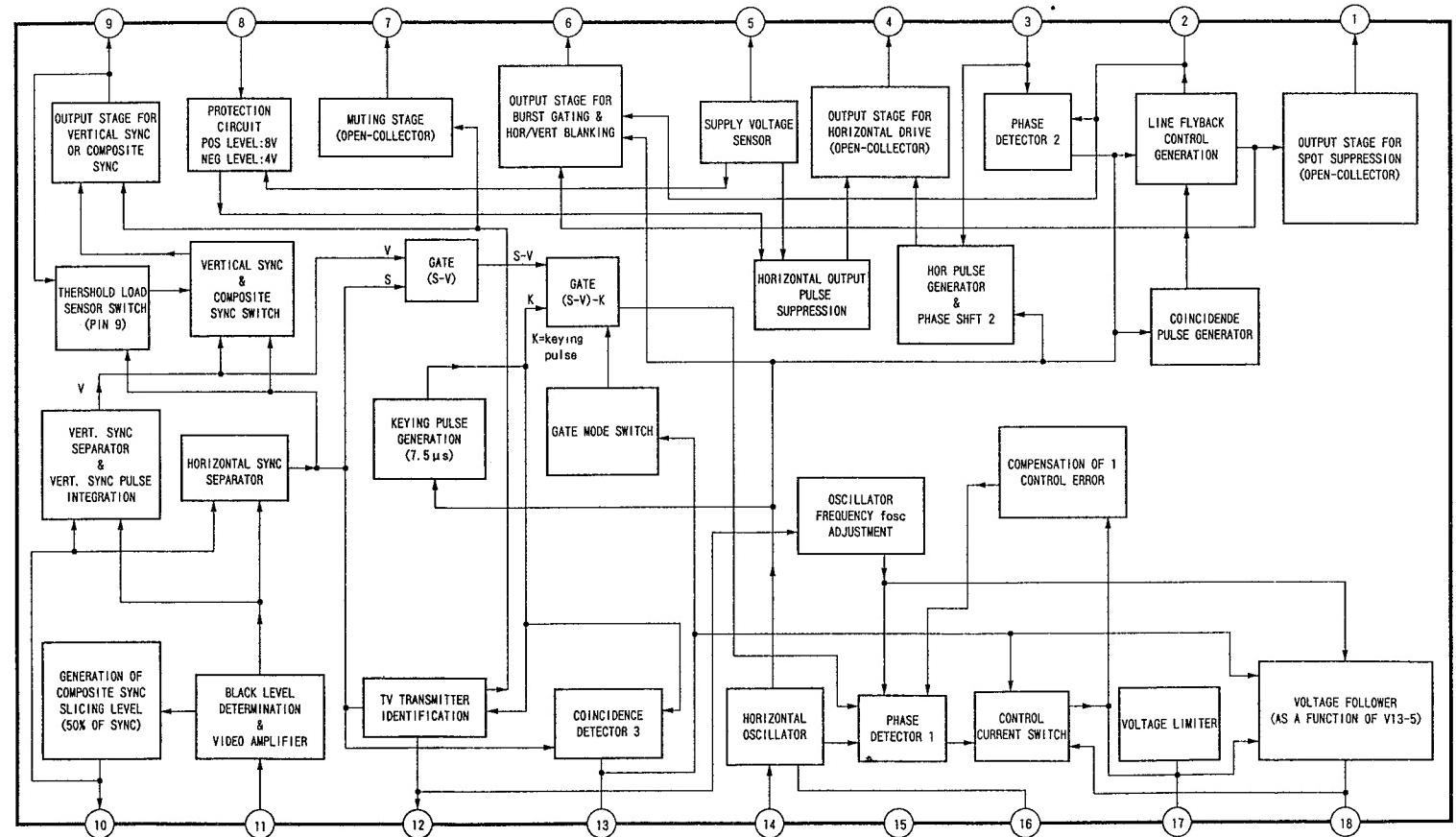
■ : Pattern from the side which enables seeing.

■ : Pattern of the rear side.

## • P1 BOARD IC3001 TDA3769



## • P1 BOARD IC3003 TDA2595



## P1

[PICTURE IN PICTURE]

## — P1 BOARD —

IC
IC3001 A-2, G-2
IC3002 D-2
IC3003 B-2, F-2
IC3004 D-4
IC3005 C-4
IC3006 B-5, G-5
IC3007 A-4, G-4
IC3008 C-5, F-5

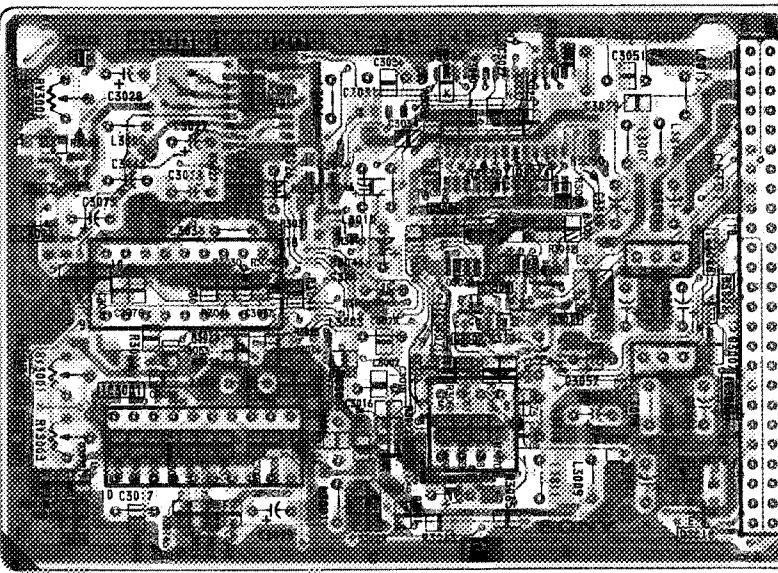
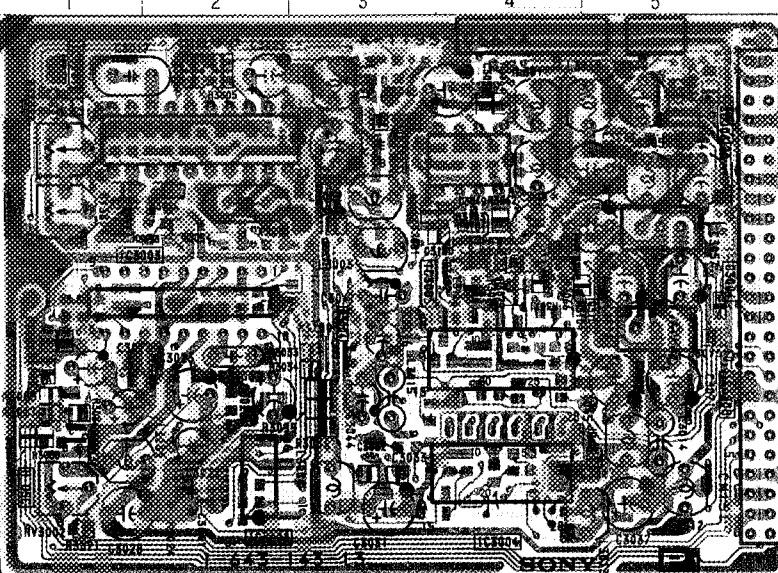
TRANSISTOR
Q3003 A-3
Q3004 C-3
Q3006 F-4
Q3007 G-4
Q3008 H-3
Q3009 G-4
Q3010 H-5
Q3011 F-4
Q3012 F-1
Q3013 C-1
Q3014 F-4
Q3100 B-4

DIODE
D3003 E-4
D3004 B-5
D3009 C-1

VARIABLE RESISTOR
RV3001 B-1, G-1
RV3002 D-1, E-1
RV3003 A-1, G-1



Pattern from the side which enables seeing.

: Pattern of the rear side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A

B

C

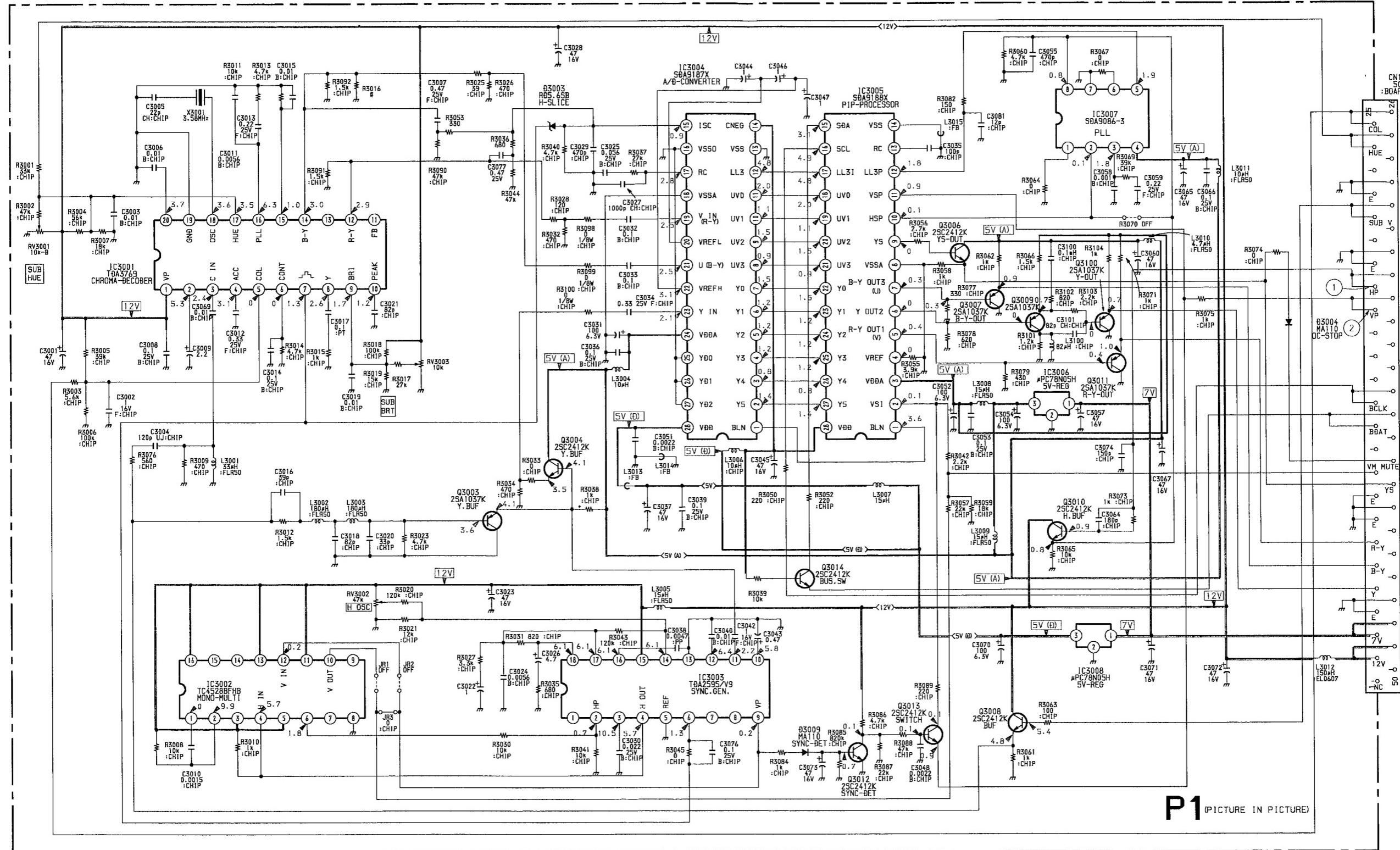
D

E

F

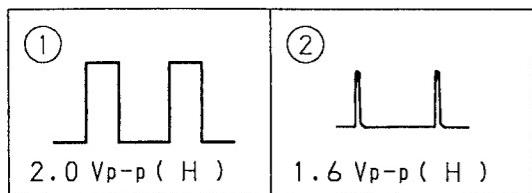
G

H

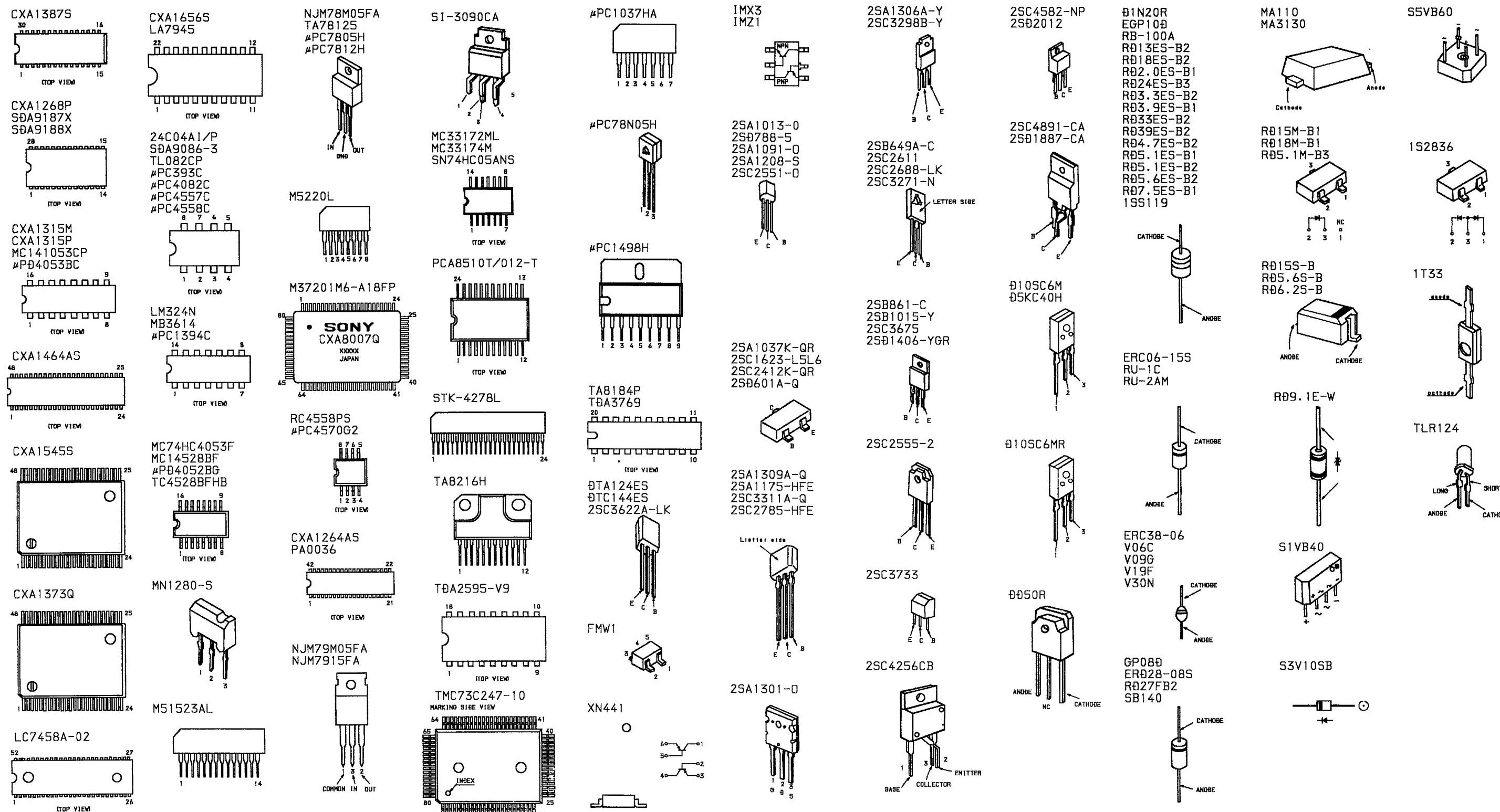


B-SS347. &lt;U/C&gt;-P1.

## • P1 BOARD WAVEFORMS



## 6-7.SEMICONDUCTORS



## SECTION 7 EXPLODED VIEWS

**NOTE:**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

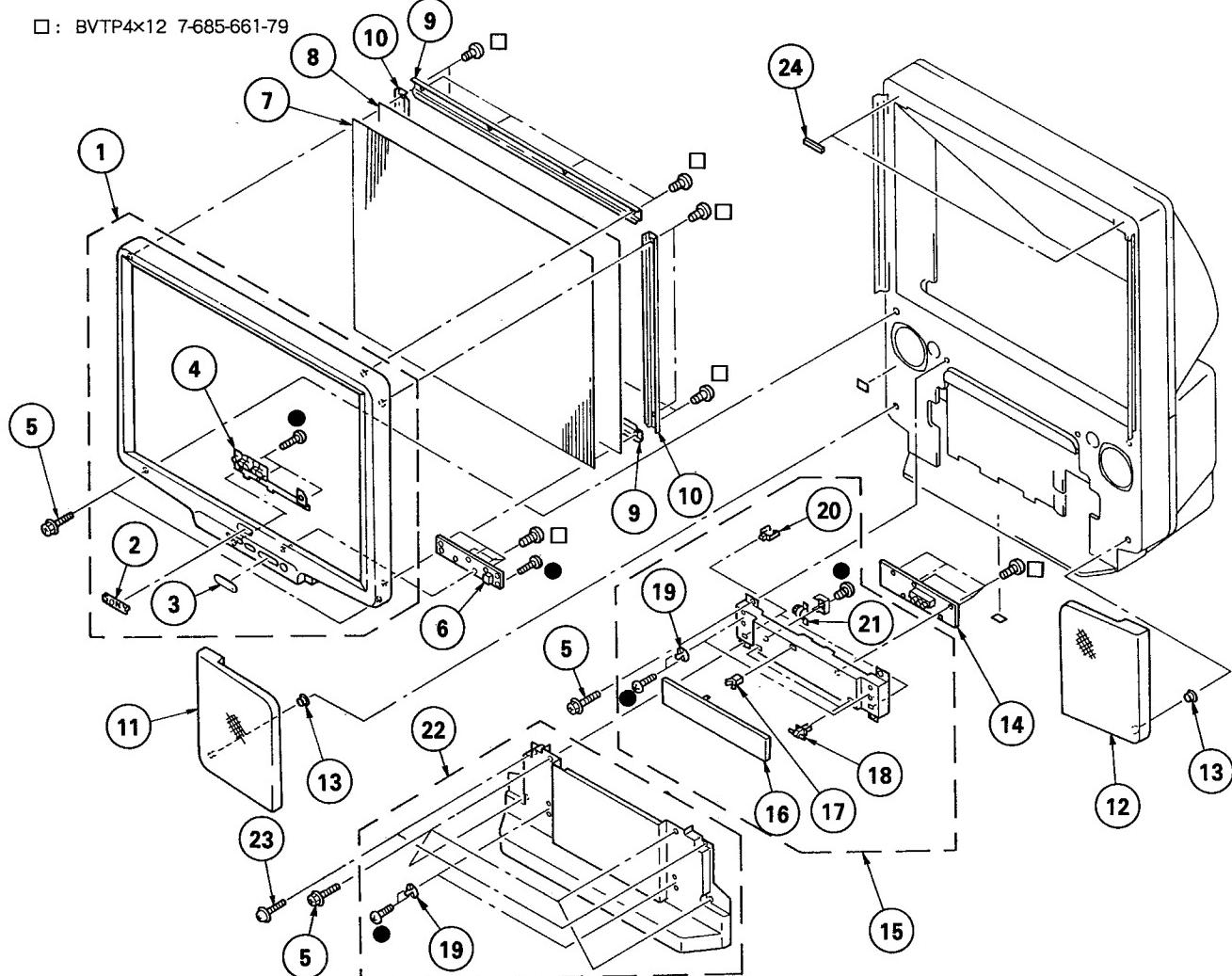
The components identified by shading and mark △ are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque △ sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

### 7-1. SCREEN FRAME AND CONTROL PANEL

● : BVTP3×12 7-685-648-79

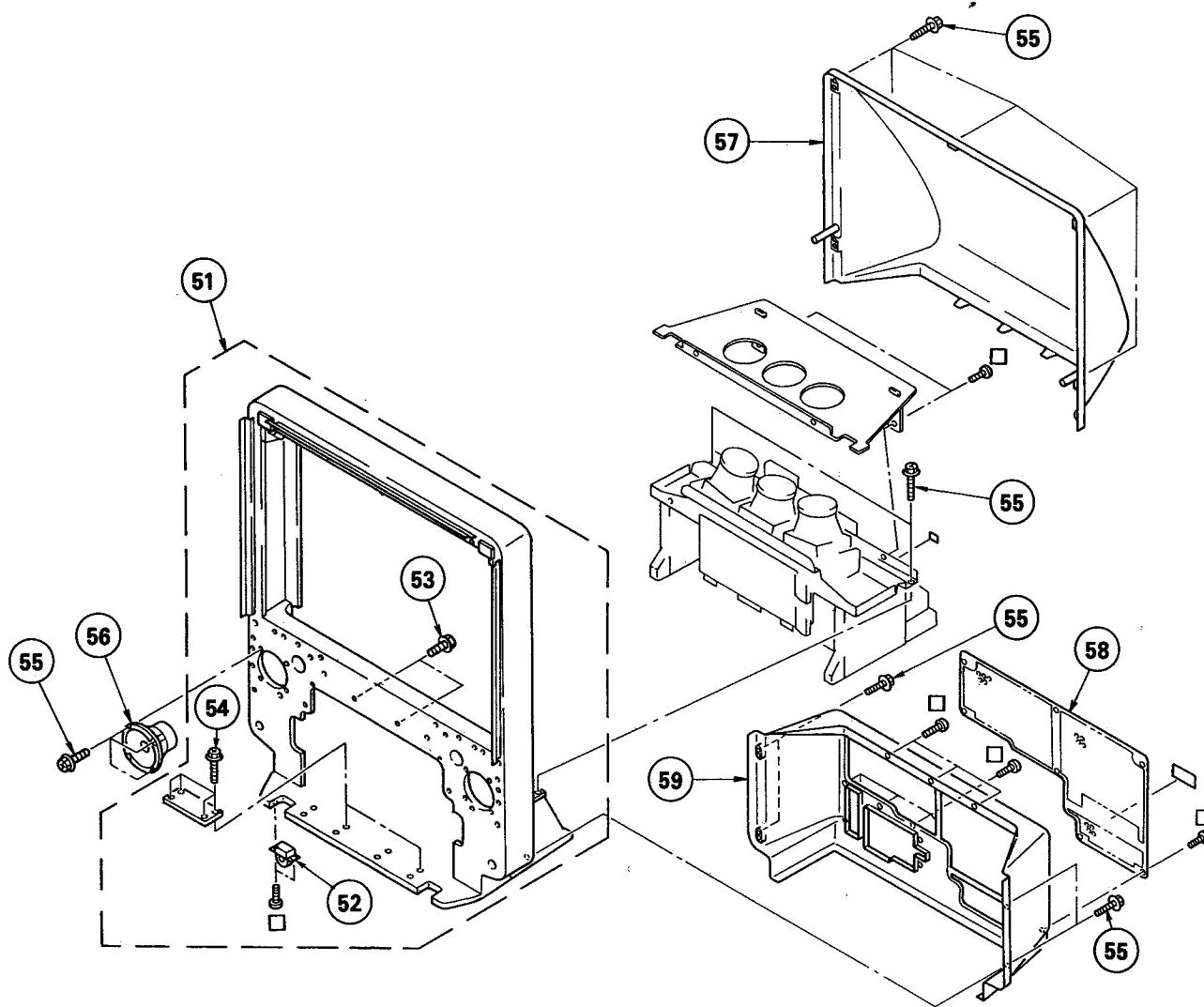
□ : BVTP4×12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4031-192-1	FRAME ASSY, SCREEN	2~4	13	4-838-438-00	LATCH	
2	3-704-179-01	EMBLEM (NO.9), SONY		14	*1-643-592-11	H2 BOARD	16~21
3	4-036-087-21	COVER, INDICATOR		15	X-4030-354-4	PANEL ASSY, CONTROL	
4	4-033-779-11	BUTTON, CONTROL		16	4-033-794-11	LID, FRONT	
5	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		17	4-374-714-01	CATCH, PUSH	
6	*1-643-591-11	H1 BOARD		18	3-703-035-11	SHAFT, LID	
7	4-034-053-01	PLATE (L), DIFFUSION		19	4-843-806-00	STRIKE	
8	4-036-520-01	PLATE (R), DIFFUSION		20	*4-314-320-00	HOLDER, WIRE	
9	4-036-091-01	HOLDER (L), SCREEN		21	3-721-204-01	DAMPER	
10	4-036-092-01	HOLDER (S), SCREEN		22	X-4030-347-1	COVER ASSY, FRONT	19
11	X-4030-346-1	GRILLE (L) ASSY, SPEAKER		23	4-304-851-11	SCREW (4X25), (+) PWH TAPPING	
12	X-4030-348-1	GRILLE (R) ASSY, SPEAKER		24	4-039-110-01	SPACER (CA)	

**7-2.CABINET AND BACK COVER**

□ : BVTP4×12 7-685-661-79



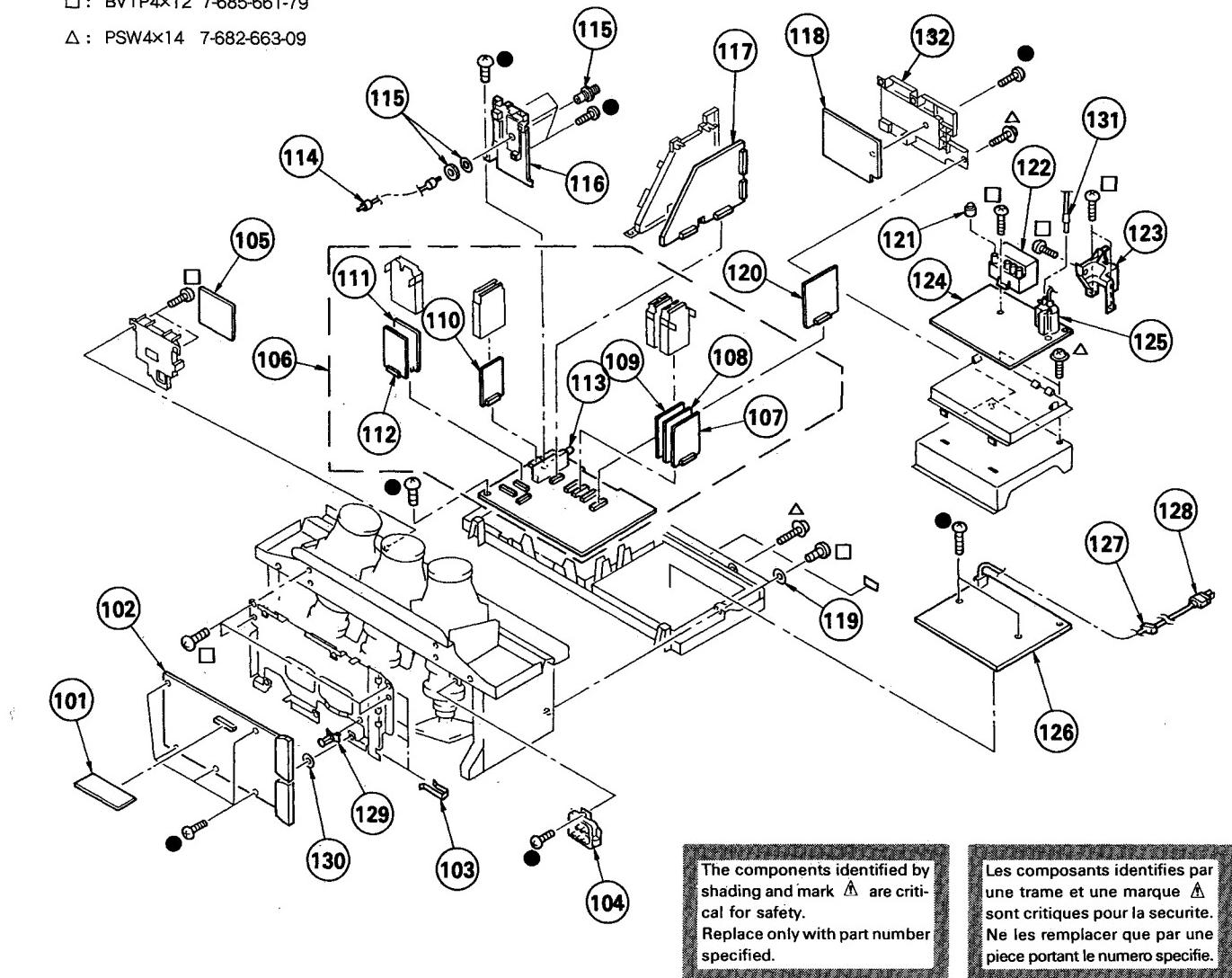
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*X-4031-104-1	CABINET ASSY		52~54	56	SPEAKER (13CM) (COAXIAL)	
52	4-040-755-01	CASTER (DIA. 30)		57	1-544-768-11	COVER, MIRROR	
53	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD		58	4-036-527-01	PLATE, REAR	
54	4-378-522-21	SCREW, TAPPING, HEXAGON HEAD		59	X-4030-402-1	COVER ASSY, BACK	
55	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD					

### 7-3.CHASSIS

● : BVTP3x12 7-685-648-79

□ : BVTP4x12 7-685-661-79

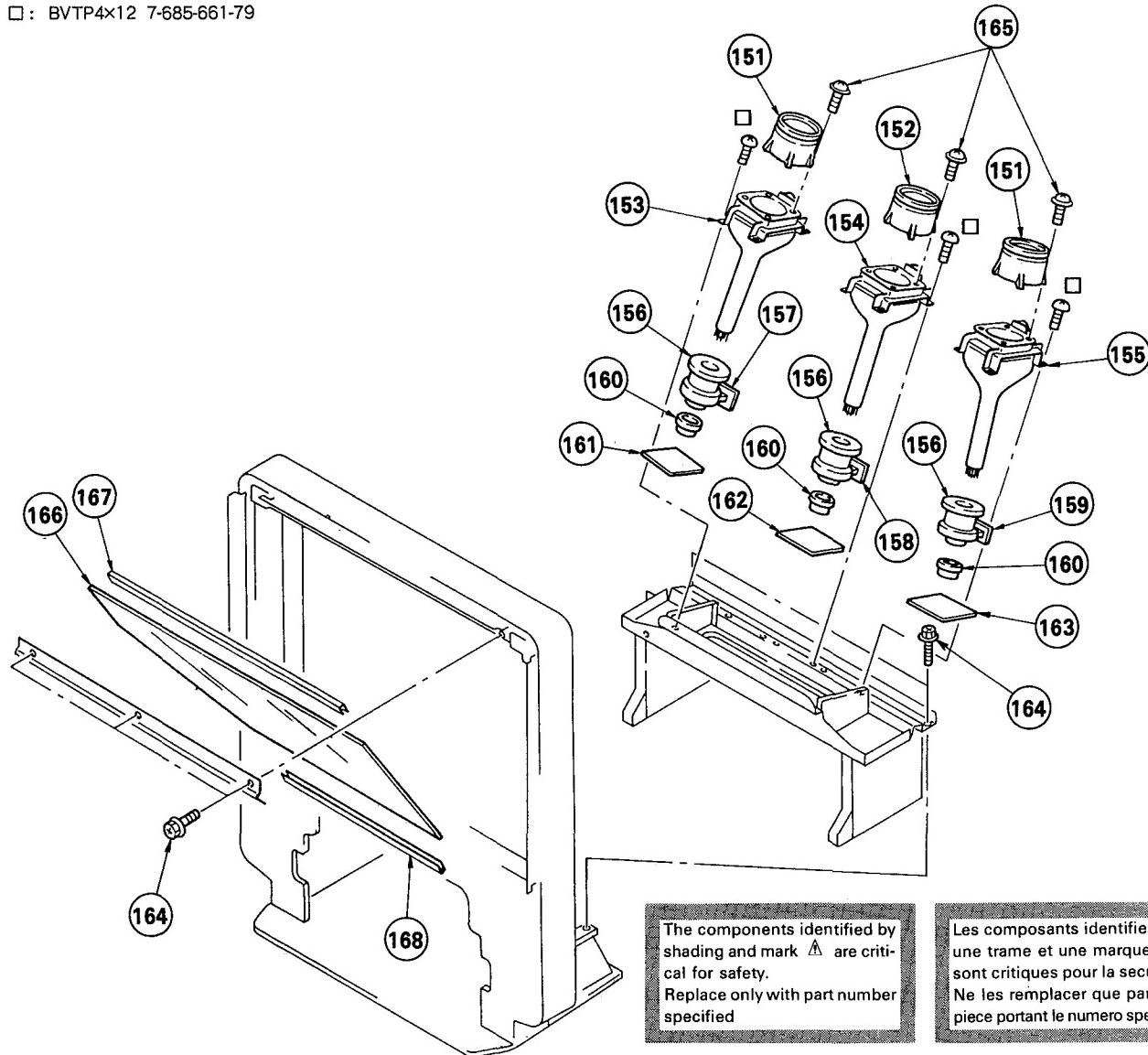
△ : PSW4x14 7-682-663-09



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	*1-644-278-11	DS BOARD		117	*A-1394-422-A	U BOARD, COMPLETE	
102	*A-1346-117-A	D BOARD, COMPLETE		118	*A-1394-432-A	UT BOARD, COMPLETE	
103	*4-393-401-11	SPRING, TRANSISTOR		119	4-039-112-01	WASHER, WAVE	
104	△ 1-241-744-11	RESISTOR ASSY (HIGH VOLTAGE)		120	*A-1342-214-A	V BOARD, COMPLETE	
105	*A-1394-421-A	S BOARD, COMPLETE		121	4-373-137-01	CAP (Z), RUBBER	
106	*A-1297-079-A	A BOARD, COMPLETE		122	△ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
107	*A-1346-138-A	E1 BOARD, COMPLETE	107~112	123	4-034-482-01	COVER, PBT	
108	*A-1346-137-A	E2 BOARD, COMPLETE		124	*A-1390-351-A	N BOARD, COMPLETE	
109	*A-1306-436-A	M BOARD, COMPLETE		125	△ 1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)	
110	*A-1195-066-A	P1 BOARD, COMPLETE		126	*A-1316-149-A	G BOARD, COMPLETE	
111	*A-1394-444-A	X2 BOARD, COMPLETE		127	△ 4-388-328-12	GROMMET, AC CORD	
112	*A-1394-443-A	Y2 BOARD, COMPLETE		128	△ 1-696-002-12	CORD, POWER (WITH NOISE FILTER)	
113	△ 1-693-102-21	TUNER (BTP-XA401)		129	*3-670-570-21	SPACER, SUPPORT	
114	*1-555-110-00	CABLE, PIN		130	4-866-147-00	WASHER	
115	1-561-306-00	JACK, PIN (F)		131	1-574-590-31	LEAD ASSY, HIGH-VOLTAGE	
116	4-036-137-03	PANEL, SUB CONNECTOR		132	4-036-138-04	PANEL (A), TERMINAL	

**7-4.PICTURE TUBE**

□ : BVTP4x12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-01	LENS (LINNIT)		160	△ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
152	4-034-057-11	LENS (LINNIT)		161	*A-1331-259-A	CR BOARD, COMPLETE	
153	△ 8-736-633-05	PICTURE TUBE (SD-249 (R))		162	*A-1331-260-A	CG BOARD, COMPLETE	
154	△ 8-736-631-05	PICTURE TUBE (SD-249 (G))		163	*A-1331-261-A	CB BOARD, COMPLETE	
155	△ 8-736-632-05	PICTURE TUBE (SD-249 (B))		164	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
156	△ 1-451-396-21	DEFLECTION YOKE (Y936PA)		165	3-701-810-91	SCREW, TERMINAL	
157	*A-1390-340-A	ZR BOARD, COMPLETE		166	4-036-134-01	MIRROR (41), REFLECTION	
158	*A-1390-346-A	ZG BOARD, COMPLETE		167	4-033-775-31	PROTECTOR, MIRROR	
159	*A-1390-347-A	ZB BOARD, COMPLETE		168	4-033-775-41	PROTECTOR, MIRROR	

# SECTION 8

## ELECTRICAL PARTS LIST

**KP-41EXR96**  
RM-Y112A

A

**NOTE:**

The components identified by shading and mark **Δ** are critical for safety.

Replace only with part number specified.

Les composants identifiés par une trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

**RESISTORS**

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

**CAPACITORS**

MF :  $\mu$ F, PF :  $\mu\mu$ F      MMH : mH, UH :  $\mu$ H

- The components identified by **■** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	*A-1297-079-A	A BOARD, COMPLETE	*****	C226	1-124-120-11	ELECT	220MF 20% 16V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C227	1-124-621-11	ELECT	3300MF 20% 6.3V
		<CONNECTOR>		C299	1-126-101-11	ELECT	100MF 20% 16V
A1	*1-564-514-11	PLUG, CONNECTOR 11P		C502	1-126-182-11	ELECT	0.47MF 20% 50V
A2	*1-564-512-11	PLUG, CONNECTOR 9P		C503	1-130-487-00	MYLAR	0.022MF 5% 50V
A3	*1-564-507-11	PLUG, CONNECTOR 4P		C504	1-136-153-00	FILM	0.01MF 5% 50V
A4	*1-564-508-11	PLUG, CONNECTOR 5P		C507	1-106-383-00	MYLAR	0.047MF 200V
A5	*1-564-511-11	PLUG, CONNECTOR 8P		C508	1-102-973-00	CERAMIC	100PF 5% 50V
A10	*1-564-511-41	PLUG, CONNECTOR 8P		C509	1-102-030-00	CERAMIC	330PF 10% 500V
A11	*1-564-511-31	PLUG, CONNECTOR 8P		C510 Δ 1-136-565-11	FILM	0.015MF 3% 1.4KV	
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		C512 Δ 1-136-598-11	FILM	3MF 5% 200V	
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		C513	1-136-153-00	FILM	0.01MF 5% 50V
A14	*1-564-513-31	PLUG, CONNECTOR 10P		C514	1-124-477-11	ELECT	47MF 20% 16V
A15	*1-564-508-11	PLUG, CONNECTOR 5P		C522	1-123-024-21	ELECT	33MF 160V
A16	*1-564-508-11	PLUG, CONNECTOR 5P		C523	1-106-383-00	MYLAR	0.047MF 200V
A17	*1-564-508-11	PLUG, CONNECTOR 5P		C528	1-124-662-11	ELECT	220MF 20% 50V
A18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		C534	1-124-011-00	ELECT	220MF 20% 16V
A19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		C535	1-124-011-00	ELECT	220MF 20% 16V
A20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P		C536	1-124-662-11	ELECT	220MF 20% 50V
A21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		C537	1-124-662-11	ELECT	220MF 20% 50V
A22	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		C539	1-124-907-11	ELECT	10MF 20% 50V
A25	*1-564-506-11	PLUG, CONNECTOR 3P		C542	1-136-153-00	FILM	0.01MF 5% 50V
A27	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P		C543	1-136-153-00	FILM	0.01MF 5% 50V
A56	*1-564-508-11	PLUG, CONNECTOR 5P		C544	1-136-153-00	FILM	0.01MF 5% 50V
		<CAPACITOR>		C545	1-136-153-00	FILM	0.01MF 5% 50V
C201	1-124-910-11	ELECT	47MF 20% 50V	C569	1-126-355-11	ELECT	33MF 20% 160V
C202	1-124-903-11	ELECT	1MF 20% 50V	C1401	1-124-910-11	ELECT	47MF 20% 50V
C203	1-130-495-00	MYLAR	0.1MF 5% 50V	C1402	1-126-157-11	ELECT	10MF 20% 16V
C204	1-124-477-11	ELECT	47MF 20% 16V	C1403	1-126-157-11	ELECT	10MF 20% 16V
C205	1-124-557-11	ELECT	1000MF 20% 25V	C1404	1-126-157-11	ELECT	10MF 20% 16V
C206	1-126-101-11	ELECT	100MF 20% 16V	C1405	1-124-910-11	ELECT	47MF 20% 50V
C207	1-124-242-00	ELECT	33MF 20% 16V	C1406	1-126-101-11	ELECT	100MF 20% 16V
C210	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C1407	1-126-057-11	ELECT	2200MF 20% 50V
C212	1-126-803-11	ELECT	47MF 20% 16V	C1408	1-136-165-00	FILM	0.1MF 5% 50V
C213	1-126-103-11	ELECT	470MF 20% 16V	C1409	1-136-165-00	FILM	0.1MF 5% 50V
C214	1-126-101-11	ELECT	100MF 20% 16V	C1413	1-124-234-00	ELECT	22MF 20% 16V
C215	1-126-803-11	ELECT	47MF 20% 50V	C1424	1-126-057-11	ELECT	2200MF 20% 50V
C216	1-126-101-11	ELECT	100MF 20% 16V	C1425	1-126-057-11	ELECT	2200MF 20% 50V
C217	1-126-803-11	ELECT	47MF 20% 25V	C1426	1-126-157-11	ELECT	10MF 20% 16V
C218	1-126-103-11	ELECT	470MF 20% 16V	C1429	1-126-101-11	ELECT	100MF 20% 16V
C219	1-124-443-00	ELECT	100MF 20% 10V	C1430	1-126-101-11	ELECT	100MF 20% 16V
C220	1-126-803-11	ELECT	47MF 20% 25V	C1431	1-124-916-11	ELECT	22MF 20% 50V
C223	1-126-803-11	ELECT	47MF 20% 25V	C1435	1-124-916-11	ELECT	22MF 20% 25V
C224	1-124-261-00	ELECT	10MF 20% 50V	C1440	1-126-336-11	ELECT	220MF 20% 25V
C225	1-124-120-11	ELECT	220MF 20% 16V	C1601	1-130-483-00	MYLAR	0.01MF 5% 50V
				C1603	1-136-153-00	FILM	0.01MF 5% 50V
				C1607	1-124-907-11	ELECT	10MF 20% 50V
				C1608	1-136-153-00	FILM	0.01MF 5% 50V
				C1609	1-136-153-00	FILM	0.01MF 5% 50V
				C1610	1-124-916-11	ELECT	22MF 20% 50V

**A**

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;DIODE&gt;</b>											
D203	8-719-911-19	DIODE ISS119		L502	1-459-313-00	COIL WITH CORE (HWC)					
D204	8-719-911-19	DIODE ISS119		L515	1-410-645-31	INDUCTOR 100UH					
<b>&lt;TRANSISTOR&gt;</b>											
D205	8-719-110-36	DIODE RD13ES-B2		Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D206	8-719-911-19	DIODE ISS119		Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D207	8-719-911-19	DIODE ISS119		Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D208	8-719-911-19	DIODE ISS119		Q501	8-729-119-80	TRANSISTOR 2SC2688-LK					
D209	8-719-911-19	DIODE ISS119		Q502	8-729-014-88	TRANSISTOR 2SC4891-CA					
D211	8-719-110-36	DIODE RD13ES-B2		Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D213	8-719-110-78	DIODE RD33ES-B2		Q505	8-729-201-32	TRANSISTOR 2SA1013-0					
D214	8-719-911-19	DIODE ISS119		Q506	8-729-201-32	TRANSISTOR 2SA1013-0					
D215	8-719-911-19	DIODE ISS119		Q507	8-729-304-92	TRANSISTOR 2SB649A-C					
D216	8-719-911-19	DIODE ISS119		Q508	8-729-204-16	TRANSISTOR 2SA1301-0					
D217	8-719-911-19	DIODE ISS119		Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D219	8-719-911-19	DIODE ISS119		Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D220	8-719-510-48	DIODE DIN20R		Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D221	8-719-911-19	DIODE ISS119		Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D222	8-719-911-19	DIODE ISS119		Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D223	8-719-911-19	DIODE ISS119		Q1402	8-729-900-63	TRANSISTOR DTA124ES					
D501	8-719-971-20	DIODE ERC38-06		Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D502	8-719-971-20	DIODE ERC38-06		Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D503	8-719-300-80	DIODE RU-1C		Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D504	8-719-109-88	DIODE RD5.6ES-B1		Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D505	8-719-900-95	DIODE V09G		Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D506	8-719-900-95	DIODE V09G		Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D507	8-719-970-89	DIODE DD50R		Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D509	8-719-911-19	DIODE ISS119		Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D510	8-719-109-71	DIODE RD3.9ES-B1		Q1620	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D511	8-719-911-19	DIODE ISS119		<b>&lt;RESISTOR&gt;</b>							
D512	8-719-911-19	DIODE ISS119		R203	1-249-425-11	CARBON	4.7K	5%	1/4W		
D513	8-719-911-19	DIODE ISS119		R204	1-249-441-11	CARBON	100K	5%	1/4W		
D514	8-719-911-19	DIODE ISS119		R214	1-249-429-11	CARBON	10K	5%	1/4W		
D515	8-719-911-19	DIODE ISS119		R215	1-249-437-11	CARBON	47K	5%	1/4W		
D1401	8-719-911-19	DIODE ISS119		R216	1-249-377-11	CARBON	0.47	5%	1/4W	F	
D1402	8-719-911-19	DIODE ISS119		R219	1-249-426-11	CARBON	5.6K	5%	1/4W		
D1403	8-719-911-19	DIODE ISS119		R221	1-249-409-11	CARBON	220	5%	1/4W		
D1404	8-719-110-88	DIODE RD39ES-B2		R222	1-249-436-11	CARBON	39K	5%	1/4W		
D1405	8-719-110-88	DIODE RD39ES-B2		R223	1-249-434-11	CARBON	27K	5%	1/4W		
D1406	8-719-911-19	DIODE ISS119		R224	1-249-409-11	CARBON	220	5%	1/4W		
D1407	8-719-110-88	DIODE RD39ES-B2		R225	1-249-417-11	CARBON	1K	5%	1/4W		
D1408	8-719-911-19	DIODE ISS119		R229	1-216-488-11	METAL OXIDE	18K	5%	3W	F	
D1409	8-719-110-88	DIODE RD39ES-B2		R231	1-249-409-91	CARBON	220	5%	1/4W	F	
D1607	8-719-911-19	DIODE ISS119		R232	1-215-906-11	METAL OXIDE	15	5%	3W	F	
D1608	8-719-911-19	DIODE ISS119		R233	1-249-409-11	CARBON	220	5%	1/4W		
<b>&lt;IC&gt;</b>											
IC201	8-749-920-58	IC SI-3090CA		R234	1-249-409-11	CARBON	220	5%	1/4W		
IC204	8-759-171-05	IC UPC7805H		R235	1-249-409-11	CARBON	220	5%	1/4W		
IC205	8-759-144-82	IC UPC2405HF		R236	1-249-409-11	CARBON	220	5%	1/4W		
IC206	8-759-231-58	IC TA7812S		R237	1-249-409-11	CARBON	220	5%	1/4W		
IC207	8-749-920-58	IC SI-3090CA		R238	1-249-409-11	CARBON	220	5%	1/4W		
IC506	8-752-057-18	IC CXA1315P		R239	1-249-409-11	CARBON	220	5%	1/4W		
IC1401	8-759-246-70	IC TA8216H		R240	1-215-906-11	METAL OXIDE	15	5%	3W	F	
IC1601	8-752-058-71	IC CXA1656S		R241	1-249-401-11	CARBON	47	5%	1/4W		
<b>&lt;COIL&gt;</b>											
L201	1-408-429-00	INDUCTOR 470UH		R242	1-215-906-11	METAL OXIDE	15	5%	3W	F	
L205	1-410-645-31	INDUCTOR 100UH		R243	1-217-294-00	WIREWOUND	4.7	10%	5W	F	
L206	1-408-416-00	INDUCTOR 39UH		R244	1-207-676-00	WIREWOUND	6.8	10%	5W		
L212	1-410-312-11	INDUCTOR 0.22UH		R296	1-249-417-11	CARBON	1K	5%	1/4W		
L501 A 1 460 196 11	COIL, HORIZONTAL LINEARITY			R501	1-247-895-00	CARBON	470K	5%	1/4W		
				R502	1-249-377-11	CARBON	0.47	5%	1/4W	F	
				R503	1-249-377-11	CARBON	0.47	5%	1/4W	F	
				R504	1-249-417-11	CARBON	1K	5%	1/4W		

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**A** **P1**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R505	1-249-423-11	CARBON	3.3K 5% 1/4W	R1443	1-215-410-00	METAL	360 1% 1/4W
R506	1-215-922-11	METAL OXIDE	6.8K 5% 3W F	R1520	1-249-429-11	CARBON	10K 5% 1/4W
R507	1-249-429-11	CARBON	10K 5% 1/4W F	R1601	1-249-423-11	CARBON	3.3K 5% 1/4W
R508	1-216-373-11	METAL OXIDE	2.2 5% 2W F	R1602	1-249-417-11	CARBON	1K 5% 1/4W
R509	1-216-478-11	METAL OXIDE	390 5% 3W F	R1603	1-249-423-11	CARBON	3.3K 5% 1/4W
R511	1-249-407-11	CARBON	150 5% 1/4W F	R1604	1-249-405-11	CARBON	100 5% 1/4W
R512	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1605	1-249-405-11	CARBON	100 5% 1/4W
R513	1-249-417-11	CARBON	1K 5% 1/4W F	R1606	1-249-405-11	CARBON	100 5% 1/4W
R514	1-216-441-00	METAL OXIDE	27K 5% 1W F	R1607	1-249-415-11	CARBON	680 5% 1/4W
R515	1-249-432-11	CARBON	18K 5% 1/4W F	R1608	1-249-415-11	CARBON	680 5% 1/4W
R516	1-249-417-11	CARBON	1K 5% 1/4W F	R1609	1-249-415-11	CARBON	680 5% 1/4W
R517	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1610	1-249-405-11	CARBON	100 5% 1/4W
R518	1-249-422-11	CARBON	2.7K 5% 1/4W F	R1611	1-249-405-11	CARBON	100 5% 1/4W
R519	1-249-417-11	CARBON	1K 5% 1/4W F	R1612	1-249-405-11	CARBON	100 5% 1/4W
R520	1-215-925-11	METAL OXIDE	22K 5% 3W F	R1613	1-249-423-11	CARBON	3.3K 5% 1/4W
R521	1-215-925-11	METAL OXIDE	22K 5% 3W F	R1614	1-249-411-11	CARBON	330 5% 1/4W
R522	1-249-421-11	CARBON	2.2K 5% 1/4W	R1622	1-249-423-11	CARBON	3.3K 5% 1/4W
R523	1-249-434-11	CARBON	27K 5% 1/4W	R1624	1-249-424-11	CARBON	3.9K 5% 1/4W
R524	1-249-434-11	CARBON	27K 5% 1/4W	R1627	1-249-429-11	CARBON	10K 5% 1/4W
R525	1-215-922-11	METAL OXIDE	6.8K 5% 3W F	R1630	1-249-434-11	CARBON	27K 5% 1/4W
R526	1-249-417-11	CARBON	1K 5% 1/4W F	R1631	1-249-433-11	CARBON	22K 5% 1/4W
R528	1-216-447-00	METAL OXIDE	27 5% 2W F	R1656	1-249-397-11	CARBON	22 5% 1/4W
R529	1-216-447-00	METAL OXIDE	27 5% 2W F	R1657	1-249-397-11	CARBON	22 5% 1/4W
R530	1-249-431-11	CARBON	15K 5% 1/4W	R1658	1-249-397-11	CARBON	22 5% 1/4W
R531	1-249-431-11	CARBON	15K 5% 1/4W				
R532	1-249-385-11	CARBON	2.2 5% 1/4W F				
R533	1-249-405-11	CARBON	100 5% 1/4W				
R534	1-249-405-11	CARBON	100 5% 1/4W				
R535	1-249-405-11	CARBON	100 5% 1/4W				
R536	1-207-687-00	WIREWOUND	150 10% 5W F				
R537	1-207-687-00	WIREWOUND	150 10% 5W F				
R550	1-249-385-11	CARBON	2.2 5% 1/4W F				
R558	1-249-385-11	CARBON	2.2 5% 1/4W F				
R559	1-249-409-11	CARBON	220 5% 1/4W				
R560	1-249-409-11	CARBON	220 5% 1/4W				
R563	1-249-429-11	CARBON	10K 5% 1/4W				
R564	1-249-429-11	CARBON	10K 5% 1/4W				
R565	1-249-427-11	CARBON	6.8K 5% 1/4W				
R566	1-249-427-11	CARBON	6.8K 5% 1/4W				
R567	1-249-427-11	CARBON	6.8K 5% 1/4W				
R568	1-249-427-11	CARBON	6.8K 5% 1/4W				
R569	1-249-426-11	CARBON	5.6K 5% 1/4W				
R570	1-249-441-11	CARBON	100K 5% 1/4W				
R571	1-249-429-11	CARBON	10K 5% 1/4W				
R572	1-249-429-11	CARBON	10K 5% 1/4W				
R574	1-249-417-11	CARBON	1K 5% 1/4W				
R579	1-249-417-11	CARBON	1K 5% 1/4W				
R1401	1-215-445-00	METAL	10K 1% 1/4W				
R1402	1-215-445-00	METAL	10K 1% 1/4W				
R1403	1-215-445-00	METAL	10K 1% 1/4W				
R1404	1-215-445-00	METAL	10K 1% 1/4W				
R1405	1-249-385-11	CARBON	2.2 5% 1/4W				
R1406	1-249-385-11	CARBON	2.2 5% 1/4W				
R1409	1-249-433-11	CARBON	22K 5% 1/4W				
R1410	1-249-433-11	CARBON	22K 5% 1/4W				
R1411	1-249-437-11	CARBON	47K 5% 1/4W				
R1427	1-215-865-11	METAL OXIDE	220 5% 1W F				
R1428	1-215-865-11	METAL OXIDE	220 5% 1W F				
R1431	1-249-405-11	CARBON	100 5% 1/4W				
R1433	1-249-425-11	CARBON	4.7K 5% 1/4W				
R1434	1-249-423-11	CARBON	3.3K 5% 1/4W				
R1439	1-247-883-00	CARBON	150K 5% 1/4W				
R1440	1-249-417-11	CARBON	1K 5% 1/4W				
R1442	1-215-410-00	METAL	360 1% 1/4W				
				C3001	1-124-589-11	ELECT	47MF 20% 16V
				C3002	1-164-346-11	CERAMIC CHIP	1MF 10% 50V
				C3003	1-164-232-11	CERAMIC CHIP	0.01MF 5% 50V
				C3004	1-163-119-00	CERAMIC CHIP	120PF 5% 50V
				C3005	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
				C3006	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
				C3007	1-164-005-11	CERAMIC CHIP	0.47MF 25V
				C3008	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
				C3009	1-124-925-11	ELECT	2.2MF 20% 50V
				C3010	1-163-145-00	CERAMIC CHIP	0.0015MF 5% 50V
				C3011	1-163-018-00	CERAMIC CHIP	0.0056MF 10% 50V
				C3012	1-164-336-11	CERAMIC CHIP	0.33MF 25V
				C3013	1-164-222-11	CERAMIC CHIP	0.22MF 25V
				C3014	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
				C3015	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
				C3016	1-163-107-00	CERAMIC CHIP	39PF 5% 50V
				C3017	1-130-495-00	MYLAR	0.1MF 5% 50V
				C3018	1-163-115-00	CERAMIC CHIP	82PF 5% 50V
				C3019	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
				C3020	1-163-105-00	CERAMIC CHIP	33PF 5% 50V
				C3021	1-163-115-00	CERAMIC CHIP	82PF 5% 50V
				C3022	1-126-301-11	ELECT	1MF 20% 50V
				C3023	1-124-589-11	ELECT	47MF 20% 16V

P1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C3024	1-163-018-00	CERAMIC CHIP 0.0056MF	10%	50V	IC3004	8-759-088-90	IC SDA9187X
C3025	1-164-343-11	CERAMIC CHIP 0.056MF	10%	25V	IC3005	8-759-088-91	IC SDA9188X
C3026	1-126-163-11	ELECT 4.7MF	20%	50V	IC3006	8-759-112-06	IC UPC78N05H
C3027	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V	IC3007	8-759-046-27	IC SDA9086-3
C3028	1-124-589-11	ELECT 47MF	20%	16V	IC3008	8-759-112-06	IC UPC78N05H
C3029	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	<COIL>		
C3030	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	L3001	1-410-476-11	INDUCTOR 33UH
C3031	1-126-177-11	ELECT 100MF	20%	6.3V	L3002	1-408-424-00	INDUCTOR 180UH
C3032	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3003	1-408-424-00	INDUCTOR 180UH
C3033	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3004	1-410-470-11	INDUCTOR 10UH
C3034	1-164-336-11	CERAMIC CHIP 0.33MF	25V	L3005	1-410-472-41	INDUCTOR 15UH	
C3035	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	L3006	1-412-788-41	INDUCTOR 10UH
C3036	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3007	1-410-472-41	INDUCTOR 15UH
C3037	1-124-589-11	ELECT 47MF	20%	16V	L3008	1-410-472-41	INDUCTOR 15UH
C3038	1-136-287-11	FILM 0.0047MF	5%	50V	L3009	1-410-472-41	INDUCTOR 15UH
C3039	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	L3010	1-410-466-41	INDUCTOR 4.7UH
C3040	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	L3011	1-410-470-11	INDUCTOR 10UH
C3042	1-164-346-11	CERAMIC CHIP 1MF	16V	L3012	1-410-676-31	INDUCTOR 150UH	
C3043	1-124-465-00	ELECT 0.47MF	20%	50V	L3013	1-412-911-11	INDUCTOR, FERRITE BEAD
C3044	1-126-301-11	ELECT 1MF	20%	50V	L3014	1-412-911-11	INDUCTOR, FERRITE BEAD
C3045	1-124-589-11	ELECT 47MF	20%	16V	L3015	1-412-911-11	INDUCTOR, FERRITE BEAD
C3046	1-126-301-11	ELECT 1MF	20%	50V	L3100	1-412-799-41	INDUCTOR 82UH
C3047	1-126-301-11	ELECT 1MF	20%	50V	<TRANSISTOR>		
C3048	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	Q3003	8-729-216-22	TRANSISTOR 2SA1162-G
C3051	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	Q3004	8-729-422-27	TRANSISTOR 2SD601A-Q
C3052	1-126-177-11	ELECT 100MF	20%	6.3V	Q3006	8-729-422-27	TRANSISTOR 2SD601A-Q
C3053	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q3007	8-729-216-22	TRANSISTOR 2SA1162-G
C3054	1-126-177-11	ELECT 100MF	20%	6.3V	Q3008	8-729-422-27	TRANSISTOR 2SD601A-Q
C3055	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	Q3009	8-729-216-22	TRANSISTOR 2SA1162-G
C3057	1-124-589-11	ELECT 47MF	20%	16V	Q3010	8-729-422-27	TRANSISTOR 2SD601A-Q
C3058	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	Q3011	8-729-216-22	TRANSISTOR 2SA1162-G
C3059	1-164-222-11	CERAMIC CHIP 0.22MF	25V	Q3012	8-729-422-27	TRANSISTOR 2SD601A-Q	
C3060	1-124-589-11	ELECT 47MF	20%	16V	Q3013	8-729-422-27	TRANSISTOR 2SD601A-Q
C3064	1-163-123-00	CERAMIC CHIP 180PF	5%	50V	Q3014	8-729-422-27	TRANSISTOR 2SD601A-Q
C3065	1-124-589-11	ELECT 47MF	20%	16V	Q3100	8-729-216-22	TRANSISTOR 2SA1162-G
C3066	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	<RESISTOR>		
C3067	1-124-589-11	ELECT 47MF	20%	16V	JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W
C3069	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	R3001	1-216-085-00	METAL GLAZE 33K 5% 1/10W
C3070	1-126-177-11	ELECT 100MF	20%	6.3V	R3002	1-216-089-00	METAL GLAZE 47K 5% 1/10W
C3071	1-124-589-11	ELECT 47MF	20%	16V	R3003	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W
C3072	1-124-589-11	ELECT 47MF	20%	16V	R3004	1-216-091-00	METAL GLAZE 56K 5% 1/10W
C3073	1-124-589-11	ELECT 47MF	20%	16V	R3005	1-216-689-11	METAL GLAZE 39K 5% 1/10W
C3074	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	R3006	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C3076	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3007	1-216-079-00	METAL GLAZE 18K 5% 1/10W
C3077	1-164-005-11	CERAMIC CHIP 0.47MF	25V	R3008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
C3081	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	R3009	1-216-041-00	METAL GLAZE 470 5% 1/10W
C3100	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3010	1-216-049-00	METAL GLAZE 1K 5% 1/10W
C3101	1-162-926-11	CERAMIC CHIP 82PF	5%	50V	R3011	1-216-073-00	METAL GLAZE 10K 5% 1/10W
<CONNECTOR>							
CN151	1-573-965-21	PIN, CONNECTOR (PC BOARD)	50P		R3012	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
<DIODE>							
D3003	8-719-158-15	DIODE RD5.6S-B			R3013	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
D3004	8-719-404-46	DIODE MA110			R3014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
D3009	8-719-404-46	DIODE MA110			R3015	1-216-049-00	METAL GLAZE 1K 5% 1/10W
<IC>							
IC3001	8-759-046-25	IC TDA3769			R3016	1-216-083-00	METAL GLAZE 27K 5% 1/10W
IC3002	8-759-009-46	IC MC14528BF			R3018	1-216-097-00	METAL GLAZE 100K 5% 1/10W
IC3003	8-759-513-48	IC TDA2595/V9			R3019	1-216-077-00	METAL GLAZE 15K 5% 1/10W
					R3020	1-216-099-00	METAL GLAZE 120K 5% 1/10W
					R3021	1-216-075-00	METAL GLAZE 12K 5% 1/10W

P1 M

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3023	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W			
R3025	1-216-015-00	METAL GLAZE	39	5%	1/10W		
R3026	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R3027	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W		
R3028	1-216-027-00	METAL GLAZE	120	5%	1/10W		
R3030	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3031	1-216-047-00	METAL GLAZE	820	5%	1/10W		
R3032	1-216-041-00	METAL GLAZE	470	5%	1/10W		
R3033	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3034	1-216-041-00	METAL GLAZE	470	5%	1/10W	X3001 1-567-505-11 OSCILLATOR, CRYSTAL	
R3035	1-216-045-00	METAL GLAZE	680	5%	1/10W		
R3036	1-216-045-00	METAL GLAZE	680	5%	1/10W		
R3037	1-216-083-00	METAL GLAZE	27K	5%	1/10W		
R3038	1-216-049-00	METAL GLAZE	1K	5%	1/10W	*A-1306-436-A M BOARD, COMPLETE	
R3039	1-216-073-00	METAL GLAZE	10K	5%	1/10W	*****	
R3040	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R3041	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3042	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
R3043	1-216-099-00	METAL GLAZE	120K	5%	1/10W		
R3044	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R3045	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3050	1-216-033-00	METAL GLAZE	220	5%	1/10W		
R3052	1-216-033-00	METAL GLAZE	220	5%	1/10W		
R3053	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R3055	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W		
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W		
R3057	1-216-081-00	METAL GLAZE	22K	5%	1/10W		
R3058	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3059	1-216-079-00	METAL GLAZE	18K	5%	1/10W		
R3060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		
R3061	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3062	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3063	1-216-025-00	METAL GLAZE	100	5%	1/10W		
R3064	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3065	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
R3066	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		
R3067	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3069	1-216-689-11	METAL GLAZE	39K	5%	1/10W		
R3071	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3073	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3074	1-216-295-00	METAL GLAZE	0	5%	1/10W		
R3075	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R3076	1-216-043-00	METAL GLAZE	560	5%	1/10W		
R3077	1-216-037-00	METAL GLAZE	330	5%	1/10W		
R3078	1-216-044-00	METAL GLAZE	620	5%	1/10W	<DIODE>	
R3079	1-216-040-00	METAL GLAZE	430	5%	1/10W	D001 8-719-404-46 DIODE MA110	
R3082	1-216-029-00	METAL GLAZE	150	5%	1/10W	D002 8-719-404-46 DIODE MA110	
R3084	1-216-049-00	METAL GLAZE	1K	5%	1/10W	D009 8-719-404-46 DIODE MA110	
R3085	1-216-119-00	METAL GLAZE	820K	5%	1/10W	D010 8-713-300-57 DIODE 1T33	
R3086	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	D011 8-719-404-46 DIODE MA110	
R3087	1-216-081-00	METAL GLAZE	22K	5%	1/10W	D012 8-719-404-46 DIODE MA110	
R3088	1-216-089-00	METAL GLAZE	47K	5%	1/10W	D014 8-719-404-46 DIODE MA110	
R3089	1-216-033-00	METAL GLAZE	220	5%	1/10W	D015 8-719-404-46 DIODE MA110	
R3090	1-216-089-00	METAL GLAZE	47K	5%	1/10W		
R3091	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	<IC>	
R3092	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	IC001 8-759-169-06 IC TMC73C247-10	
R3098	1-216-296-00	METAL GLAZE	0	5%	1/8W	IC002 8-759-403-44 IC MN1280-S	
R3099	1-216-296-00	METAL GLAZE	0	5%	1/8W		
R3100	1-216-296-00	METAL GLAZE	0	5%	1/8W		
R3101	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	<COIL>	
R3102	1-216-047-00	METAL GLAZE	820	5%	1/10W	L001 1-408-409-00 INDUCTOR 10UH	
R3103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	L002 1-410-476-11 INDUCTOR 33UH	
R3104	1-216-049-00	METAL GLAZE	1K	5%	1/10W		

**M E2**

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
<CONNECTOR>											
M001	1-573-965-21	PIN, CONNECTOR (PC BOARD)	50P			R063	1-216-033-00	METAL GLAZE	220	5%	1/10W
M39	*1-564-521-11	PLUG, CONNECTOR	6P			R064	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
M45	*1-564-523-31	PLUG, CONNECTOR	8P			R065	1-216-033-00	METAL GLAZE	220	5%	1/10W
						R066	1-216-033-00	METAL GLAZE	220	5%	1/10W
<TRANSISTOR>											
Q001	8-729-216-22	TRANSISTOR	2SA1162-G			R067	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q009	8-729-422-27	TRANSISTOR	2SD601A-Q			R068	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q010	8-729-422-27	TRANSISTOR	2SD601A-Q			R069	1-216-049-00	METAL GLAZE	1K	5%	1/10W
Q011	8-729-422-27	TRANSISTOR	2SD601A-Q			R070	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q012	8-729-422-27	TRANSISTOR	2SD601A-Q			R071	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q013	8-729-216-22	TRANSISTOR	2SA1162-G			R072	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q014	8-729-422-27	TRANSISTOR	2SD601A-Q			R073	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
						R074	1-216-033-00	METAL GLAZE	220	5%	1/10W
						R075	1-216-033-00	METAL GLAZE	220	5%	1/10W
						R076	1-216-089-00	METAL GLAZE	47K	5%	1/10W
<RESISTOR>											
R001	1-216-045-00	METAL GLAZE	680	5%	1/10W	R077	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R002	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R078	1-216-033-00	METAL GLAZE	220	5%	1/10W
R003	1-216-121-00	METAL GLAZE	1M	5%	1/10W	R079	1-216-025-00	METAL GLAZE	100	5%	1/10W
R004	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R080	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R005	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R081	1-216-033-00	METAL GLAZE	220	5%	1/10W
R006	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R082	1-216-033-00	METAL GLAZE	220	5%	1/10W
R007	1-216-027-00	METAL GLAZE	120	5%	1/10W	R083	1-216-033-00	METAL GLAZE	220	5%	1/10W
R008	1-216-041-00	METAL GLAZE	470	5%	1/10W	R084	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R009	1-216-027-00	METAL GLAZE	120	5%	1/10W	R085	1-216-033-00	METAL GLAZE	220	5%	1/10W
R011	1-216-033-00	METAL GLAZE	220	5%	1/10W	R086	1-216-033-00	METAL GLAZE	220	5%	1/10W
R012	1-216-033-00	METAL GLAZE	220	5%	1/10W	R087	1-216-033-00	METAL GLAZE	220	5%	1/10W
R013	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R088	1-216-033-00	METAL GLAZE	220	5%	1/10W
R014	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R089	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R015	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R090	1-216-033-00	METAL GLAZE	220	5%	1/10W
R016	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R091	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R017	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R092	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R093	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R019	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R094	1-216-033-00	METAL GLAZE	220	5%	1/10W
R033	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R034	1-216-033-00	METAL GLAZE	220	5%	1/10W	R096	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R035	1-216-033-00	METAL GLAZE	220	5%	1/10W	R097	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R036	1-216-033-00	METAL GLAZE	220	5%	1/10W	R098	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R037	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R099	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R038	1-216-033-00	METAL GLAZE	220	5%	1/10W	R100	1-216-025-00	METAL GLAZE	100	5%	1/10W
R039	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R101	1-216-025-00	METAL GLAZE	100	5%	1/10W
R040	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R102	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R041	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R103	1-216-033-00	METAL GLAZE	220	5%	1/10W
R042	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R104	1-216-033-00	METAL GLAZE	220	5%	1/10W
R043	1-216-033-00	METAL GLAZE	220	5%	1/10W						
R044	1-216-033-00	METAL GLAZE	220	5%	1/10W						
R045	1-216-025-00	METAL GLAZE	100	5%	1/10W						
R046	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W						
R047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W						
R048	1-216-033-00	METAL GLAZE	220	5%	1/10W						
R049	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W						
R050	1-216-295-00	METAL GLAZE	0	5%	1/10W						
R051	1-216-033-00	METAL GLAZE	220	5%	1/10W	C2302	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2310	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	C2314	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W	C2315	1-126-157-11	ELECT	10MF	20%	16V
R056	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2316	1-126-157-11	ELECT	10MF	20%	16V
R057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2317	1-126-157-11	ELECT	10MF	20%	16V
R058	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2318	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W	C2320	1-124-589-11	ELECT	47MF	20%	16V
R060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C2321	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V

<CAPACITOR>

X001	1-579-743-11	VIBRATOR, CRYSTAL
*****		
	*A-1346-137-A	E2 BOARD, COMPLETE
*****		

E2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C2322	1-124-234-00	ELECT 22MF	20%	16V	Q2305	8-729-903-10	TRANSISTOR FMW1	
C2323	1-124-234-00	ELECT 22MF	20%	16V	Q2306	8-729-403-27	TRANSISTOR XN4401	
C2324	1-124-234-00	ELECT 22MF	20%	16V	Q2307	8-729-403-27	TRANSISTOR XN4401	
C2325	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2308	8-729-403-27	TRANSISTOR XN4401	
C2326	1-124-589-11	ELECT 47MF	20%	16V	Q2309	8-729-903-10	TRANSISTOR FMW1	
C2327	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2310	8-729-403-27	TRANSISTOR XN4401	
C2328	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2311	8-729-903-10	TRANSISTOR FMW1	
C2329	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2312	8-729-403-27	TRANSISTOR XN4401	
C2331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2313	8-729-903-10	TRANSISTOR FMW1	
C2332	1-124-234-00	ELECT 22MF	20%	16V	Q2314	8-729-403-27	TRANSISTOR XN4401	
C2333	1-124-234-00	ELECT 22MF	20%	16V	Q2315	8-729-903-10	TRANSISTOR FMW1	
C2334	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
C2335	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
C2336	1-126-163-11	ELECT 4.7MF	20%	16V	Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
C2337	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2320	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2338	1-163-038-00	CERAMIC CHIP 0.1MF		25V	Q2321	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2340	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	6.3V	Q2322	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2341	1-135-217-21	TANTAL. CHIP 15MF	20%		Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
C2345	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2326	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2346	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2327	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2347	1-163-367-11	CERAMIC CHIP 39PF	5%	50V	Q2328	8-729-925-79	TRANSISTOR IMX3	
C2349	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2329	8-729-925-79	TRANSISTOR IMX3	
C2350	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2330	8-729-903-10	TRANSISTOR FMW1	
C2351	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2336	8-729-925-79	TRANSISTOR IMX3	
C2352	1-164-505-11	CERAMIC CHIP 2.2MF		16V	Q2337	8-729-925-79	TRANSISTOR IMX3	
C2353	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2339	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2354	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q2340	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2357	1-126-301-11	ELECT 1MF	20%	50V	Q2341	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2360	1-163-109-00	CERAMIC CHIP 47PF	5%	50V				

## &lt;DIODE&gt;

D2306	8-719-404-46	DIODE MA110
D2307	8-719-946-98	DIODE FMN1
D2308	8-719-946-98	DIODE FMN1
D2309	8-719-404-46	DIODE MA110
D2312	8-719-404-46	DIODE MA110
D2313	8-719-404-46	DIODE MA110
D2314	8-713-300-57	DIODE 1T33
D2317	8-719-404-46	DIODE MA110

## &lt;CONNECTOR&gt;

E2-002	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P
E2-25	*1-564-521-31	PLUG, CONNECTOR 6P
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P

## &lt;IC&gt;

IC2301	8-759-066-52	IC PCA8510T/012-T
IC2303	8-759-925-75	IC SN74HC05ANS
IC2304	8-752-037-15	IC CXA1387S
IC2306	8-759-011-65	IC MC74HC4053F
IC2307	8-752-058-68	IC CXA1315M

## &lt;COIL&gt;

L2304	1-408-414-00	INDUCTOR 27UH
-------	--------------	---------------

## &lt;TRANSISTOR&gt;

Q2301	8-729-903-10	TRANSISTOR FMW1
Q2303	8-729-403-27	TRANSISTOR XN4401
Q2304	8-729-925-79	TRANSISTOR IMX3

E2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2335	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3310	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2336	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3311	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2337	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3312	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2338	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3313	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2340	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3314	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2341	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3315	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R2342	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3316	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R2343	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3318	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2344	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3319	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2345	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R3320	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2346	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3321	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2347	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R3323	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R2348	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R3324	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2349	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3325	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2350	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3328	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3330	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2352	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3331	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2353	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3332	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2354	1-216-210-00	METAL GLAZE	3.3K 5% 1/8W	R3333	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R2355	1-216-178-00	METAL GLAZE	150 5% 1/8W	R3334	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R2356	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R3335	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2357	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W	R3336	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R2359	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3337	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R2360	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3339	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2361	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3340	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2362	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3341	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R2363	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3342	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W
R2364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3343	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2365	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3344	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3347	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R2367	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3348	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R2368	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3349	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3350	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2374	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2375	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3352	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2376	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3353	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2377	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3354	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2378	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3356	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R2379	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3357	1-216-654-11	METAL CHIP	1.3K 0.50% 1/10W
R2380	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3358	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R2381	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3359	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R2382	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3360	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2384	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3361	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2385	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R3362	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2386	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3364	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2387	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3365	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2388	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3367	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2389	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3368	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2390	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3369	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2392	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3370	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2393	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3371	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2394	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3373	1-216-673-11	METAL CHIP	8.2K 0.50% 1/10W
R2395	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3374	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2396	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3375	1-216-658-11	METAL CHIP	2K 0.50% 1/10W
R2397	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3376	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R2399	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3377	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R3301	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3378	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R3302	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3379	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R3303	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R3380	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R3304	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R3381	1-216-025-00	METAL GLAZE	100 5% 1/10W
R3306	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R3382	1-216-295-00	METAL GLAZE	0 5% 1/10W
R3307	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R3392	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R3308	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3401	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R3309	1-216-049-00	METAL GLAZE	1K 5% 1/10W				

E2 E1

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK									
R7312	1-216-049-00	METAL GLAZE	1K	5%	1/10W		C361	1-126-301-11	ELECT	1MF	20%	50V										
R7313	1-216-047-00	METAL GLAZE	820	5%	1/10W		C362	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V										
R7314	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		C363	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V										
<CRYSTAL>																						
X2301	1-577-071-11	VIBRATOR, CERAMIC					C364	1-126-301-11	ELECT	1MF	20%	50V										
*****																						
*A-1346-138-A B1 BOARD, COMPLETE							C365	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V										
*****							C366	1-124-257-00	ELECT	2.2MF	20%	50V										
<CAPACITOR>																						
C301	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V		C367	1-126-157-11	ELECT	10MF	20%	16V										
C303	1-126-157-11	ELECT	10MF	20%	16V		C368	1-124-234-00	ELECT	22MF	20%	16V										
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		C369	1-163-001-11	CERAMIC CHIP	220PF	10%	50V										
C305	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C370	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V										
C306	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		C371	1-124-126-00	ELECT	47MF	20%	16V										
C309	1-164-505-11	CERAMIC CHIP	2.2MF		16V		C372	1-124-589-11	ELECT	47MF	20%	16V										
C310	1-163-109-00	CERAMIC CHIP	47PF	5%	50V		C373	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V										
C314	1-124-915-11	ELECT	10MF	20%	16V		C378	1-163-117-00	CERAMIC CHIP	100PF	5%	50V										
C315	1-164-505-11	CERAMIC CHIP	2.2MF		16V		C379	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V										
C319	1-126-157-11	ELECT	10MF	20%	16V		C380	1-163-137-00	CERAMIC CHIP	680PF	5%	50V										
C320	1-124-465-00	ELECT	0.47MF	20%	50V		C381	1-163-101-00	CERAMIC CHIP	22PF	5%	50V										
C321	1-163-125-00	CERAMIC CHIP	220PF	5%	50V		C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V										
C322	1-163-003-11	CERAMIC CHIP	330PF	10%	50V		C383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V										
C323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V		C384	1-163-095-00	CERAMIC CHIP	12PF	5%	50V										
C324	1-124-234-00	ELECT	22MF	20%	16V		<DIODE>															
C325	1-104-563-11	FILM CHIP	0.1MF	5%	16V		D301	8-719-404-46	DIODE	MA110												
C326	1-104-563-11	FILM CHIP	0.1MF	5%	16V		D302	8-719-404-46	DIODE	MA110												
C327	1-104-563-11	FILM CHIP	0.1MF	5%	16V		D303	8-719-404-46	DIODE	MA110												
C328	1-126-157-11	ELECT	10MF	20%	16V		D304	8-719-404-46	DIODE	MA110												
C329	1-126-157-11	ELECT	10MF	20%	16V		D305	8-719-404-46	DIODE	MA110												
C330	1-126-157-11	ELECT	10MF	20%	16V		D306	8-719-158-15	DIODE	RD5.6S-B												
C331	1-126-301-11	ELECT	1MF	20%	50V		D307	8-719-404-46	DIODE	MA110												
C332	1-124-584-00	ELECT	100MF	20%	10V		D310	8-719-158-15	DIODE	RD5.6S-B												
C333	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V		D312	8-719-404-46	DIODE	MA110												
C334	1-137-491-11	FILM CHIP	0.1MF	5%	25V		D313	8-719-404-46	DIODE	MA110												
C335	1-136-169-00	FILM	0.22MF	5%	50V		D314	8-719-404-46	DIODE	MA110												
C336	1-126-301-11	ELECT	1MF	20%	50V		D315	8-719-404-46	DIODE	MA110												
C337	1-126-301-11	ELECT	1MF	20%	50V		D316	8-719-404-46	DIODE	MA110												
C338	1-124-584-00	ELECT	100MF	20%	10V		D317	8-719-404-46	DIODE	MA110												
C339	1-124-791-11	ELECT	1MF	20%	50V		D318	8-719-404-46	DIODE	MA110												
<DELAY LINE>																						
C340	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V		D319	8-719-404-46	DIODE	MA110												
C341	1-126-157-11	ELECT	10MF	20%	16V		D320	8-719-404-46	DIODE	MA110												
C342	1-124-465-00	ELECT	0.47MF	20%	50V		D321	8-719-400-94	DIODE	MA3130												
C343	1-124-589-11	ELECT	47MF	20%	16V		<CONNECTOR>															
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		E1-001	1-573-965-21	PIN, CONNECTOR (PC BOARD)	50P												
C345	1-124-767-00	ELECT	2.2MF	20%	50V		E1-24	*1-564-523-11	PLUG, CONNECTOR	8P												
C346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V		E1-25	*1-564-521-31	PLUG, CONNECTOR	6P												
C347	1-136-169-00	FILM	0.22MF	5%	50V		E1-26	*1-564-522-11	PLUG, CONNECTOR	7P												
C348	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		<IC>															
C349	1-126-301-11	ELECT	1MF	20%	50V		IC301	8-752-058-68	IC	CXA1315W												
C350	1-126-301-11	ELECT	1MF	20%	50V		IC302	8-752-057-68	IC	CXA1464AS												
C351	1-163-002-11	CERAMIC CHIP	270PF	10%	50V		IC303	8-759-106-02	IC	UPC4570G2												
C352	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V		<COIL>															
C353	1-126-163-11	ELECT	4.7MF	20%	50V		L301	1-410-064-11	INDUCTOR	2.7MMH												
C354	1-136-169-00	FILM	0.22MF	5%	50V		L307	1-410-944-31	INDUCTOR CHIP	15UH												
C355	1-124-465-00	ELECT	0.47MF	20%	50V		L308	1-410-946-31	INDUCTOR CHIP	22UH												
C356	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V																	
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V																	
C358	1-124-767-00	ELECT	2.2MF	20%	50V																	
C360	1-137-491-11	FILM CHIP	0.1MF	5%	25V																	

E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>							
Q301	8-729-925-79	TRANSISTOR IMX3		R343	1-216-077-00	METAL GLAZE	15K 5% 1/10W
Q302	8-729-925-79	TRANSISTOR IMX3		R344	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R345	1-216-292-11	METAL GLAZE	8.2M 5% 1/8W
Q304	8-729-907-46	TRANSISTOR IMZ1		R346	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q305	8-729-925-79	TRANSISTOR IMX3		R347	1-216-081-00	METAL GLAZE	22K 5% 1/10W
Q306	8-729-422-27	TRANSISTOR 2SD601A-Q		R348	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q307	8-729-903-10	TRANSISTOR FMW1		R349	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q309	8-729-422-27	TRANSISTOR 2SD601A-Q		R350	1-216-089-00	METAL GLAZE	47K 5% 1/10W
Q310	8-729-422-27	TRANSISTOR 2SD601A-Q		R351	1-216-674-11	METAL CHIP	9.1K 0.50% 1/10W
Q311	8-729-403-27	TRANSISTOR XN4401		R352	1-216-011-00	METAL GLAZE	27 5% 1/10W
Q312	8-729-422-27	TRANSISTOR 2SD601A-Q		R353	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q314	8-729-403-27	TRANSISTOR XN4401		R354	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q315	8-729-422-27	TRANSISTOR 2SD601A-Q		R355	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q316	8-729-422-27	TRANSISTOR 2SD601A-Q		R356	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q317	8-729-216-22	TRANSISTOR 2SA1162-G		R357	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q321	8-729-925-79	TRANSISTOR IMX3		R358	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q322	8-729-216-22	TRANSISTOR 2SA1162-G		R359	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q323	8-729-422-27	TRANSISTOR 2SD601A-Q		R360	1-216-119-00	METAL GLAZE	820K 5% 1/10W
Q324	8-729-216-22	TRANSISTOR 2SA1162-G		R361	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q325	8-729-216-22	TRANSISTOR 2SA1162-G		R362	1-216-079-00	METAL GLAZE	18K 5% 1/10W
Q326	8-729-422-27	TRANSISTOR 2SD601A-Q		R363	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q327	8-729-422-27	TRANSISTOR 2SD601A-Q		R364	1-216-045-00	METAL GLAZE	680 5% 1/10W
Q328	8-729-422-27	TRANSISTOR 2SD601A-Q		R365	1-216-017-00	METAL GLAZE	47 5% 1/10W
Q329	8-729-925-79	TRANSISTOR IMX3		R366	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q330	8-729-925-79	TRANSISTOR IMX3		R367	1-216-045-00	METAL GLAZE	680 5% 1/10W
Q331	8-729-925-79	TRANSISTOR IMX3		R368	1-216-001-00	METAL GLAZE	10 5% 1/10W
Q333	8-729-422-27	TRANSISTOR 2SD601A-Q		R369	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q334	8-729-422-27	TRANSISTOR 2SD601A-Q		R370	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q335	8-729-907-46	TRANSISTOR IMZ1		R371	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q340	8-729-422-27	TRANSISTOR 2SD601A-Q		R372	1-216-031-00	METAL GLAZE	180 5% 1/10W
Q342	8-729-925-79	TRANSISTOR IMX3		R373	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
Q344	8-729-216-22	TRANSISTOR 2SA1162-G		R374	1-216-037-00	METAL GLAZE	330 5% 1/10W
<RESISTOR>							
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W	R375	1-216-037-00	METAL GLAZE	330 5% 1/10W
R302	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R376	1-216-037-00	METAL GLAZE	330 5% 1/10W
R303	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R377	1-216-033-00	METAL GLAZE	220 5% 1/10W
R304	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R378	1-216-033-00	METAL GLAZE	220 5% 1/10W
R305	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R379	1-216-033-00	METAL GLAZE	220 5% 1/10W
R306	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R380	1-216-033-00	METAL GLAZE	220 5% 1/10W
R307	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R381	1-216-033-00	METAL GLAZE	220 5% 1/10W
R308	1-216-037-00	METAL GLAZE	330 5% 1/10W	R382	1-216-033-00	METAL GLAZE	220 5% 1/10W
R309	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R383	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R310	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R384	1-216-041-00	METAL GLAZE	470 5% 1/10W
R312	1-216-043-00	METAL GLAZE	560 5% 1/10W	R385	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R313	1-216-035-00	METAL GLAZE	270 5% 1/10W	R386	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R314	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R387	1-216-033-00	METAL GLAZE	220 5% 1/10W
R316	1-216-035-00	METAL GLAZE	270 5% 1/10W	R388	1-216-033-00	METAL GLAZE	220 5% 1/10W
R317	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R389	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R319	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R390	1-216-033-00	METAL GLAZE	220 5% 1/10W
R320	1-216-039-00	METAL GLAZE	390 5% 1/10W	R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R325	1-216-033-00	METAL GLAZE	220 5% 1/10W	R393	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R326	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R394	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R331	1-216-017-00	METAL GLAZE	47 5% 1/10W	R395	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R332	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W	R396	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R333	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R397	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R336	1-216-047-00	METAL GLAZE	820 5% 1/10W	R398	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R338	1-216-043-00	METAL GLAZE	560 5% 1/10W	R399	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R339	1-216-047-00	METAL GLAZE	820 5% 1/10W	R401	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R340	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R402	1-216-045-00	METAL GLAZE	680 5% 1/10W
R341	1-216-043-00	METAL GLAZE	560 5% 1/10W	R403	1-216-085-00	METAL GLAZE	33K 5% 1/10W
				R404	1-216-081-00	METAL GLAZE	22K 5% 1/10W
				R405	1-216-025-00	METAL GLAZE	100 5% 1/10W
				R406	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
				R407	1-216-073-00	METAL GLAZE	10K 5% 1/10W
				R408	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W

E1

Y2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1309	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1389	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1310	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1390	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1311	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1391	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1312	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1392	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1313	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1394	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1314	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1395	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1315	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1396	1-216-125-00	METAL GLAZE	1.5M 5% 1/10W
R1316	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1399	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1317	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R5301	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1318	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R5302	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1319	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R5303	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1320	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R5304	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1321	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R5305	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1322	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R1323	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R1324	1-216-045-00	METAL GLAZE	680 5% 1/10W				<CRYSTAL>
R1325	1-216-025-00	METAL GLAZE	100 5% 1/10W	X301	1-567-505-11	OSCILLATOR, CRYSTAL	
R1326	1-216-073-00	METAL GLAZE	10K 5% 1/10W				*****
R1327	1-216-033-00	METAL GLAZE	220 5% 1/10W				*****
R1328	1-216-033-00	METAL GLAZE	220 5% 1/10W				*****
R1329	1-216-077-00	METAL GLAZE	15K 5% 1/10W				*A-1394-443-A Y2 BOARD, COMPLETE
R1330	1-216-081-00	METAL GLAZE	22K 5% 1/10W				*****
R1331	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R1332	1-216-093-00	METAL GLAZE	68K 5% 1/10W				
R1333	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W				<CAPACITOR>
R1334	1-216-097-00	METAL GLAZE	100K 5% 1/10W	C401	1-124-234-00	ELECT	22MF 20% 16V
R1335	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C424	1-126-301-11	ELECT	1MF 20% 50V
R1336	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C425	1-126-301-11	ELECT	1MF 20% 50V
R1337	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C426	1-126-301-11	ELECT	1MF 20% 50V
R1338	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C427	1-124-465-00	ELECT	0.47MF 20% 50V
R1339	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C428	1-126-163-11	ELECT	4.7MF 20% 50V
R1340	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C429	1-124-478-11	ELECT	100MF 20% 25V
R1342	1-216-033-00	METAL GLAZE	220 5% 1/10W	C430	1-124-261-00	ELECT	10MF 20% 50V
R1343	1-216-105-00	METAL GLAZE	220K 5% 1/10W	C431	1-126-301-11	ELECT	1MF 20% 50V
R1344	1-216-091-00	METAL GLAZE	56K 5% 1/10W	C432	1-126-301-11	ELECT	1MF 20% 50V
R1345	1-216-101-00	METAL GLAZE	150K 5% 1/10W	C433	1-131-347-00	TANTALUM	1MF 20% 16V
R1346	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C434	1-126-301-11	ELECT	1MF 20% 50V
R1347	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C435	1-130-309-00	FILM	0.033MF 5% 100V
R1348	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C436	1-126-301-11	ELECT	1MF 20% 50V
R1349	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C437	1-130-487-00	MYLAR	0.022MF 5% 50V
R1350	1-216-091-00	METAL GLAZE	56K 5% 1/10W	C438	1-126-301-11	ELECT	1MF 20% 50V
R1351	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C439	1-124-034-51	ELECT	33MF 20% 16V
R1352	1-216-039-00	METAL GLAZE	390 5% 1/10W	C440	1-126-301-11	ELECT	1MF 20% 50V
R1353	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	C441	1-126-301-11	ELECT	1MF 20% 50V
R1354	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C442	1-124-261-00	ELECT	10MF 20% 50V
R1355	1-216-017-00	METAL GLAZE	47 5% 1/10W	C443	1-124-589-11	ELECT	47MF 20% 16V
R1356	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C446	1-124-234-00	ELECT	22MF 20% 16V
R1357	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C447	1-126-301-11	ELECT	1MF 20% 50V
R1358	1-216-033-00	METAL GLAZE	220 5% 1/10W	C448	1-136-170-00	FILM	0.27MF 5% 50V
R1362	1-216-105-00	METAL GLAZE	220K 5% 1/10W	C449	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
R1363	1-216-041-00	METAL GLAZE	470 5% 1/10W	C450	1-130-475-00	MYLAR	0.0022MF 5% 50V
R1364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	C451	1-124-261-00	ELECT	10MF 20% 50V
R1373	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C452	1-124-261-00	ELECT	10MF 20% 50V
R1374	1-216-025-00	METAL GLAZE	100 5% 1/10W	C453	1-130-475-00	MYLAR	0.0022MF 5% 50V
R1379	1-216-079-00	METAL GLAZE	18K 5% 1/10W	C454	1-131-368-00	TANTALUM	3.3MF 10% 16V
R1380	1-216-075-00	METAL GLAZE	12K 5% 1/10W	C455	1-131-347-00	TANTALUM	1MF 20% 16V
R1381	1-216-041-00	METAL GLAZE	470 5% 1/10W	C456	1-136-171-00	FILM	0.33MF 5% 50V
R1382	1-216-079-00	METAL GLAZE	18K 5% 1/10W	C457	1-136-175-00	FILM	0.68MF 5% 50V
R1383	1-216-077-00	METAL GLAZE	15K 5% 1/10W	C458	1-126-101-11	ELECT	100MF 20% 16V
R1384	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C459	1-126-101-11	ELECT	100MF 20% 16V
R1385	1-216-037-00	METAL GLAZE	330 5% 1/10W	C460	1-126-101-11	ELECT	100MF 20% 16V
R1386	1-216-037-00	METAL GLAZE	330 5% 1/10W	C461	1-124-499-11	ELECT	1MF 20% 50V
R1387	1-216-045-00	METAL GLAZE	680 5% 1/10W	C462	1-124-499-11	ELECT	1MF 20% 50V
R1388	1-216-001-00	METAL GLAZE	10 5% 1/10W	C465	1-130-485-00	MYLAR	0.015MF 5% 50V

**Y2**

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
C466	1-130-485-00	MYLAR	0.015MF	5%	50V	R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
C467	1-136-169-00	FILM	0.22MF	5%	50V	R476	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C468	1-136-169-00	FILM	0.22MF	5%	50V	R477	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
C469	1-126-157-11	ELECT	10MF	20%	16V	R478	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C470	1-126-157-11	ELECT	10MF	20%	16V	R479	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C471	1-124-589-11	ELECT	47MF	20%	16V	R480	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R481	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R482	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C474	1-124-234-00	ELECT	22MF	20%	16V	R483	1-216-089-00	METAL GLAZE	47K	5%	1/10W
C475	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W
C476	1-124-234-00	ELECT	22MF	20%	16V	R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R488	1-216-295-00	METAL GLAZE	0	5%	1/10W
C478	1-124-478-11	ELECT	100MF	20%	25V	R494	1-216-025-00	METAL GLAZE	100	5%	1/10W
C479	1-126-163-11	ELECT	4.7MF	20%	50V	R495	1-216-025-00	METAL GLAZE	100	5%	1/10W
C480	1-124-768-11	ELECT	4.7MF	20%	50V	R496	1-216-025-00	METAL GLAZE	100	5%	1/10W
C481	1-124-768-11	ELECT	4.7MF	20%	50V	R497	1-216-033-00	METAL GLAZE	220	5%	1/10W
C482	1-126-163-11	ELECT	4.7MF	20%	50V	R498	1-216-025-00	METAL GLAZE	100	5%	1/10W
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	R499	1-216-025-00	METAL GLAZE	100	5%	1/10W
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	R500	1-216-081-00	METAL GLAZE	22K	5%	1/10W
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V	R501	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R502	1-216-033-00	METAL GLAZE	220	5%	1/10W
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R503	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
<DIODE>						R504	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
D405	8-719-107-13	DIODE RD18M-B1				R507	1-216-295-00	METAL GLAZE	0	5%	1/10W
D406	8-719-107-13	DIODE RD18M-B1				R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D407	8-719-107-13	DIODE RD18M-B1				R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
D408	8-719-105-83	DIODE RD5.1M-B3				R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D409	8-719-981-50	DIODE RB-100A				R513	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
D410	8-719-981-50	DIODE RB-100A				R515	1-216-295-00	METAL GLAZE	0	5%	1/10W
D413	8-719-158-19	DIODE RD6.2S-B				R517	1-216-025-00	METAL GLAZE	100	5%	1/10W
D414	8-719-158-55	DIODE RD15S-B				R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W
D415	8-719-158-55	DIODE RD15S-B				R519	1-216-295-00	METAL GLAZE	0	5%	1/10W
<IC>						R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
IC403	8-759-996-43	IC RC4558PS				R522	1-216-033-00	METAL GLAZE	220	5%	1/10W
IC404	8-759-067-24	IC 24C04AI/P				R523	1-216-033-00	METAL GLAZE	220	5%	1/10W
IC406	8-752-037-24	IC CXA1264AS				R524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
IC407	8-759-245-75	IC TA8184P				R525	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
IC408	8-752-057-18	IC CXA1315P				R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W
<TRANSISTOR>						R527	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
Q404	8-729-216-22	TRANSISTOR 2SA1162-G				R528	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
Q405	8-729-216-22	TRANSISTOR 2SA1162-G				R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W
Q409	8-729-422-27	TRANSISTOR 2SD601A-Q				R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q				R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W
<RESISTOR>						R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W	R535	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W	R536	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R537	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R538	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W	R539	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W	R542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W	R543	1-216-025-00	METAL GLAZE	100	5%	1/10W
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	R546	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W	R547	1-216-681-11	METAL CHIP	18K	0.50%	1/10W
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W	<CONNECTOR>					
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	Y2-401 1-573-966-11 PIN, CONNECTOR (PC BOARD) 36P					
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W	*****					
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W						

X2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1394-444-A	X2 BOARD, COMPLETE			C2563	1-163-257-11	CERAMIC CHIP 180PF	5% 50V
	*****			C2564	1-126-301-11	ELECT 1MF	20% 50V
	<CAPACITOR>			C2565	1-126-163-11	ELECT 4.7MF	20% 50V
C2501	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2566	1-126-163-11	ELECT 4.7MF	20% 50V
C2502	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2567	1-126-163-11	ELECT 4.7MF	20% 50V
C2503	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	C2568	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C2504	1-126-163-11	ELECT 4.7MF	20% 50V	C2569	1-163-257-11	CERAMIC CHIP 180PF	5% 50V
C2505	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2570	1-124-234-00	ELECT 22MF	20% 16V
C2506	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2571	1-126-301-11	ELECT 1MF	20% 50V
C2507	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C2572	1-126-163-11	ELECT 4.7MF	20% 50V
C2508	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2573	1-124-234-00	ELECT 22MF	20% 16V
C2509	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C2574	1-126-301-11	ELECT 1MF	20% 50V
C2510	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	C2575	1-126-301-11	ELECT 1MF	20% 50V
C2511	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2576	1-126-301-11	ELECT 1MF	20% 50V
C2512	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2577	1-126-163-11	ELECT 4.7MF	20% 50V
C2513	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2578	1-126-163-11	ELECT 4.7MF	20% 50V
C2514	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2579	1-126-103-11	ELECT 470MF	20% 16V
C2515	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2580	1-124-478-11	ELECT 100MF	20% 25V
C2516	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C2581	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C2517	1-126-157-11	ELECT 10MF	20% 16V	C2582	1-124-477-11	ELECT 47MF	20% 25V
C2518	1-126-163-11	ELECT 4.7MF	20% 50V	C2583	1-126-163-11	ELECT 4.7MF	20% 50V
C2519	1-126-301-11	ELECT 1MF	20% 50V	C2584	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C2520	1-126-163-11	ELECT 4.7MF	20% 50V	C2585	1-126-163-11	ELECT 4.7MF	20% 50V
C2521	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C2586	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C2522	1-124-252-00	ELECT 0.33MF	20% 50V	C2587	1-126-163-11	ELECT 4.7MF	20% 50V
C2523	1-126-163-11	ELECT 4.7MF	20% 50V	C2588	1-126-163-11	ELECT 4.7MF	20% 50V
C2524	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2589	1-126-163-11	ELECT 4.7MF	20% 50V
C2525	1-126-163-11	ELECT 4.7MF	20% 50V	C2590	1-126-163-11	ELECT 4.7MF	20% 50V
C2526	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C2591	1-124-478-11	ELECT 100MF	20% 25V
C2527	1-126-157-11	ELECT 10MF	20% 16V			<DIODE>	
C2528	1-124-465-00	ELECT 0.47MF	20% 50V	D2501	8-719-104-34	DIODE 1S2836	
C2529	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	D2502	8-719-106-88	DIODE RD15M-B1	
C2530	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	D2503	8-719-106-88	DIODE RD15M-B1	
C2531	1-126-301-11	ELECT 1MF	20% 50V	D2504	8-719-106-88	DIODE RD15M-B1	
C2532	1-126-301-11	ELECT 1MF	20% 50V			<IC>	
C2533	1-124-261-00	ELECT 10MF	20% 50V	IC2501	8-759-031-31	IC MC33174M	
C2534	1-163-257-11	CERAMIC CHIP 180PF	5% 50V	IC2502	8-752-050-75	IC CXA1373Q	
C2535	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2503	8-759-604-70	IC M51523AL	
C2536	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2504	8-759-031-31	IC MC33174M	
C2537	1-126-163-11	ELECT 4.7MF	20% 50V	IC2505	8-759-604-70	IC M51523AL	
C2538	1-126-163-11	ELECT 4.7MF	20% 50V			<JACK>	
C2539	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	IC2506	8-759-106-22	IC UPD4052BG	
C2540	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	IC2507	8-759-038-68	IC MC33172ML	
C2541	1-163-139-00	CERAMIC CHIP 820PF	5% 50V	IC2508	8-759-038-68	IC MC33172ML	
C2542	1-124-478-11	ELECT 100MF	20% 25V			<TRANSISTOR>	
C2543	1-124-252-00	ELECT 0.33MF	20% 50V	J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	
C2544	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V			<RESISTOR>	
C2545	1-126-301-11	ELECT 1MF	20% 50V	Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG	
C2546	1-126-163-11	ELECT 4.7MF	20% 50V			<CAPACITOR>	
C2547	1-126-163-11	ELECT 4.7MF	20% 25V	R2501	1-216-079-00	METAL GLAZE 18K	5% 1/10W
C2548	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	R2502	1-216-097-00	METAL GLAZE 100K	5% 1/10W
C2549	1-126-163-11	ELECT 4.7MF	20% 50V	R2503	1-216-091-00	METAL GLAZE 56K	5% 1/10W
C2550	1-126-163-11	ELECT 4.7MF	20% 25V	R2504	1-216-109-00	METAL GLAZE 330K	5% 1/10W
C2551	1-126-301-11	ELECT 1MF	20% 50V	R2505	1-216-109-00	METAL GLAZE 330K	5% 1/10W
C2552	1-126-163-11	ELECT 4.7MF	20% 50V			<IC>	
C2553	1-126-301-11	ELECT 1MF	20% 50V			<JACK>	
C2554	1-124-234-00	ELECT 22MF	20% 16V			<TRANSISTOR>	
C2555	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			<RESISTOR>	
C2556	1-124-257-00	ELECT 2.2MF	20% 50V			<CAPACITOR>	
C2557	1-124-234-00	ELECT 22MF	20% 16V			<IC>	
C2558	1-126-301-11	ELECT 1MF	20% 50V			<JACK>	
C2559	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			<TRANSISTOR>	
C2560	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V			<RESISTOR>	
C2561	1-126-301-11	ELECT 1MF	20% 50V			<IC>	
C2562	1-163-263-11	CERAMIC CHIP 330PF	5% 50V			<JACK>	

**X2 G**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK			
R2506	1-216-101-00	METAL GLAZE	150K 5%	1/10W	R2572	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2507	1-216-091-00	METAL GLAZE	56K 5%	1/10W	R2573	1-216-082-00	METAL GLAZE	24K 5%	1/10W	
R2508	1-216-079-00	METAL GLAZE	18K 5%	1/10W	R2574	1-216-085-00	METAL GLAZE	33K 5%	1/10W	
R2509	1-216-130-11	METAL GLAZE	2.4M 5%	1/10W	R2575	1-216-089-00	METAL GLAZE	47K 5%	1/10W	
R2510	1-216-097-00	METAL GLAZE	100K 5%	1/10W	R2576	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2511	1-216-085-00	METAL GLAZE	33K 5%	1/10W	R2577	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2512	1-216-103-00	METAL GLAZE	180K 5%	1/10W	R2578	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2513	1-216-085-00	METAL GLAZE	33K 5%	1/10W	R2579	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2514	1-216-103-00	METAL GLAZE	180K 5%	1/10W	R2580	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2515	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2581	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2516	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	R2582	1-216-083-00	METAL GLAZE	27K 5%	1/10W	
R2517	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2583	1-216-083-00	METAL GLAZE	27K 5%	1/10W	
R2518	1-216-072-00	METAL GLAZE	9.1K 5%	1/10W	R2584	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2519	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2585	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2520	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2586	1-216-085-00	METAL GLAZE	33K 5%	1/10W	
R2521	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2587	1-216-085-00	METAL GLAZE	33K 5%	1/10W	
R2522	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	R2588	1-216-085-00	METAL GLAZE	33K 5%	1/10W	
R2523	1-216-077-00	METAL GLAZE	15K 5%	1/10W	R2589	1-216-081-00	METAL GLAZE	22K 5%	1/10W	
R2524	1-216-129-00	METAL GLAZE	2.2M 5%	1/10W	R2590	1-216-079-00	METAL GLAZE	18K 5%	1/10W	
R2526	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2591	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2527	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2592	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2528	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2593	1-216-079-00	METAL GLAZE	18K 5%	1/10W	
R2529	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2594	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2530	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2595	1-216-089-00	METAL GLAZE	47K 5%	1/10W	
R2531	1-216-089-00	METAL GLAZE	47K 5%	1/10W	R2596	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2532	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2597	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2533	1-216-089-00	METAL GLAZE	47K 5%	1/10W	R2598	1-216-089-00	METAL GLAZE	47K 5%	1/10W	
R2534	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2599	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2535	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2600	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2536	1-216-129-00	METAL GLAZE	2.2M 5%	1/10W	R2601	1-216-089-00	METAL GLAZE	47K 5%	1/10W	
R2537	1-216-077-00	METAL GLAZE	15K 5%	1/10W	R2602	1-216-073-00	METAL GLAZE	10K 5%	1/10W	
R2539	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	R2604	1-216-089-00	METAL GLAZE	47K 5%	1/10W	
R2540	1-216-075-00	METAL GLAZE	12K 5%	1/10W	R2605	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2541	1-216-069-00	METAL GLAZE	6.8K 5%	1/10W	R2606	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2542	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2610	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2543	1-216-081-00	METAL GLAZE	22K 5%	1/10W	R2611	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2544	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2612	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2545	1-216-048-00	METAL GLAZE	910 5%	1/10W	R2613	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2546	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2614	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2547	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R2615	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2548	1-216-073-00	METAL GLAZE	10K 5%	1/10W	R2616	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2549	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	R2617	1-216-125-00	METAL GLAZE	1.5M 5%	1/10W	
R2550	1-216-088-00	METAL GLAZE	43K 5%	1/10W	R2618	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	
R2551	1-216-088-00	METAL GLAZE	43K 5%	1/10W	R2619	1-216-049-00	METAL GLAZE	1K 5%	1/10W	
R2552	1-216-049-00	METAL GLAZE	1K 5%	1/10W						
R2553	1-216-078-00	METAL GLAZE	16K 5%	1/10W						
R2554	1-216-082-00	METAL GLAZE	24K 5%	1/10W						
R2555	1-216-089-00	METAL GLAZE	47K 5%	1/10W						
R2556	1-216-049-00	METAL GLAZE	1K 5%	1/10W						
R2557	1-216-085-00	METAL GLAZE	33K 5%	1/10W						
R2558	1-216-088-00	METAL GLAZE	43K 5%	1/10W						
R2559	1-216-091-00	METAL GLAZE	56K 5%	1/10W						
R2560	1-216-103-00	METAL GLAZE	180K 5%	1/10W						
R2561	1-216-097-00	METAL GLAZE	100K 5%	1/10W						
R2562	1-216-089-00	METAL GLAZE	47K 5%	1/10W						
R2563	1-216-088-00	METAL GLAZE	43K 5%	1/10W	C601	1-161-830-00	CERAMIC	4700PF	10%	500V
R2564	1-216-088-00	METAL GLAZE	43K 5%	1/10W	C602	1-130-317-00	FILM	0.068MF	5%	100V
R2565	1-216-103-00	METAL GLAZE	180K 5%	1/10W	C603	1-124-634-11	ELECT	1MF	20%	250V
R2566	1-216-073-00	METAL GLAZE	10K 5%	1/10W	C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV
R2567	1-216-073-00	METAL GLAZE	10K 5%	1/10W	C606	1-124-563-11	ELECT	2200MF	20%	25V
R2568	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C607	1-124-563-11	ELECT	2200MF	20%	25V
R2569	1-216-097-00	METAL GLAZE	100K 5%	1/10W	C608	1-128-484-11	ELECT	100MF	20%	200V
R2570	1-216-091-00	METAL GLAZE	56K 5%	1/10W	C609	1-137-141-11	FILM	0.082MF	3%	600V
R2571	1-216-078-00	METAL GLAZE	16K 5%	1/10W	C612	1-124-962-11	ELECT	2200MF	20%	25V

\*\*\*\*\* \* A-1316-149-A G BOARD, COMPLETE \*\*\*\*\*

\*\*\*\*\*

1-533-223-11 CLIP, FUSE  
3-701-754-00 PLATE, INSULATING  
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C614	1-126-326-51	ELECT	10MF	20%	200V	D631	8-719-911-19	DIODE 1SS119	
C615	1-124-798-11	ELECT	1MF	20%	160V	D632	8-719-511-40	DIODE S1VR40	
C616	1-124-557-11	ELECT	1000MF	20%	25V	D633 A 8-719-505-60	DIODE S5VB60		
C617	1-164-143-11	CERAMIC	0.001MF	10%	1KV	D634	8-719-911-19	DIODE 1SS119	
C618	1-136-853-11	FILM	0.56MF	5%	200V	D636	8-719-109-85	DIODE RD5.1ES-B2	
C619	1-164-735-11	CAP, CERAMIC	1500PF			D638	8-719-911-19	DIODE 1SS119	
C620	1-136-721-21	FILM	1.5MF	10%	400V	D640 A 8-719-510-09	DIODE D10SC6M		
C621	1-164-143-11	CERAMIC	0.001MF	10%	1KV	D650	8-719-160-81	DIODE RD27F-B2	
C622	1-136-853-11	FILM	0.56MF	5%	200V				
C623	1-137-087-11	FILM	0.068MF	3%	0				
C624	1-126-771-11	ELECT	100MF	20%	160V			<FUSE>	
C625	1-126-183-11	ELECT	1000MF	20%	16V	F601 A 1-532-748-11	FUSE, GLASS TUBE 6.3A/125V		
C626	1-126-373-11	ELECT	470MF	20%	10V				
C628	1-161-830-00	CERAMIC	4700PF	10%	500V				
C629	1-124-607-11	ELECT	2200MF	20%	50V				
C631	1-126-803-11	ELECT	47MF	20%	50V			<PERTRITE BEAD>	
C632	1-124-903-11	ELECT	1MF	20%	50V	FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
C633	1-130-483-00	MYLAR	0.01MF	5%	50V	FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C634	1-126-803-11	ELECT	47MF	20%	16V	FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
C637 A 1-136-311-51	FILM	0.47MF	20%	125V	FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		
C638 A 1-161-743-12	CERAMIC	0.0047MF		400V	FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		
C639 A 1-125-692-11	ELECT(BLOCK)	820MF	20%	200V	FB612	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		
C640 A 1-126-311-51	FILM	0.47MF	20%	125V	FB622	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		
C641	1-126-101-11	ELECT	100MF	20%	16V	FB630	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C642 A 1-161-743-12	CERAMIC	0.0047MF		400V	FB631	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		
C644	1-126-104-11	ELECT	470MF	20%	35V			<CONNECTOR>	
C646	1-124-907-11	ELECT	10MF	20%	50V	G1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
C647 A 1-164-486-51	CERAMIC	0.0033MF	20%	400V	G2	*1-564-512-11	PLUG, CONNECTOR 9P		
C648 A 1-125-692-11	ELECT(BLOCK)	820MF	20%	200V	G3	*1-564-507-11	PLUG, CONNECTOR 4P		
C649 A 1-164-486-51	CERAMIC	0.0033MF	20%	400V	G4	*1-564-511-11	PLUG, CONNECTOR 8P		
C650 A 1-161-743-12	CERAMIC	0.0047MF		400V	G5	*1-564-508-11	PLUG, CONNECTOR 5P		
C660	1-102-125-00	CERAMIC	0.0047MF	10%	50V	G7	*1-564-507-11	PLUG, CONNECTOR 4P	
C661	1-102-125-00	CERAMIC	0.0047MF	10%	50V	G8	*1-580-843-11	PIN, CONNECTOR (POWER)	
C662	1-124-910-11	ELECT	47MF	20%	35V	G9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
C663	1-126-017-11	ELECT	6800MF	20%	16V	G10	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
C664	1-126-017-11	ELECT	6800MF	20%	16V	G11	*1-564-511-31	PLUG, CONNECTOR 8P	
C670	1-102-074-00	CERAMIC	0.001MF	10%	50V	G12	*1-564-505-11	PLUG, CONNECTOR 2P	
								<DIODE>	
D602	8-719-979-58	DIODE EGP10D						<IC>	
D603	8-719-500-67	DIODE D5KC40H							
D604	8-719-510-09	DIODE D10SC6M							
D605	8-719-988-31	DIODE D10SC6MR							
D607	8-719-025-81	DIODE S3V10SB							
D608	8-719-109-85	DIODE RD5.1ES-B2						<COIL>	
D609	8-719-109-84	DIODE RD5.1ES-B1							
D610	8-719-979-58	DIODE EGP10D				L602	1-459-862-11	COIL, CHOKE 90UH	
D611	8-719-979-58	DIODE EGP10D				L604	1-408-404-00	INDUCTOR 3.9UH	
D613	8-719-303-57	DIODE RU2AM				L605	1-412-526-11	INDUCTOR 12UH	
D614	8-719-979-58	DIODE EGP10D				L607	1-408-404-00	INDUCTOR 3.9UH	
D615	8-719-975-76	DIODE SB140				L611	1-412-546-41	INDUCTOR 560UH	
D616	8-719-025-81	DIODE S3V10SB				L612	1-412-540-31	INDUCTOR 180UH	
D617	8-719-110-02	DIODE RD7.5ES-B1				L613	1-412-522-41	INDUCTOR 5.6UH	
D618	8-719-911-19	DIODE 1SS119							
D619	8-719-975-76	DIODE SB140						<TRANSISTOR>	
D620 A 8-719-988-31	DIODE D10SC6MR								
D621	8-719-908-03	DIODE GP08D				Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
D622	8-719-908-03	DIODE GP08D				Q604	8-729-119-80	TRANSISTOR 2SC2688-LK	
D623	8-719-110-63	DIODE RD24ES-B3				Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D624	8-719-109-89	DIODE RD5.6ES-B2				Q608	8-729-326-11	TRANSISTOR 2SC2611	
D626	8-719-908-03	DIODE GP08D				Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D628	8-719-110-49	DIODE RD18ES-B2				Q610	8-729-019-58	TRANSISTOR 2SA1208T-TP	
D629	8-719-911-19	DIODE 1SS119				Q611	8-729-019-58	TRANSISTOR 2SA1208T-TP	

**G CR**

The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q612	8-729-386-12	TRANSISTOR 2SB861-C		R666	1-249-377-11	CARBON	0.47 5% 1/4W F
Q613	8-729-209-15	TRANSISTOR 2SD2012		R667 <input checked="" type="triangle"/>	1-202-888-91	SOLID	2.2M 20% 1/2W
Q614	8-729-011-15	TRANSISTOR 2SC4582NP		R668 <input checked="" type="triangle"/>	1-215-904-91	METAL OXIDE	100K 5% 2W F
Q615	8-729-019-58	TRANSISTOR 2SA1208T-TP		R669	1-249-377-11	CARBON	0.47 5% 1/4W F
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y		R675	1-249-377-11	CARBON	0.47 5% 1/4W F
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE		R687	1-249-417-11	CARBON	1K 5% 1/4W F
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE		R689	1-247-742-11	CARBON	180 5% 1/2W F
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE		R691	1-249-421-11	CARBON	2.2K 5% 1/4W
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE		R694	1-249-421-11	CARBON	2.2K 5% 1/4W
Q629	8-729-378-84	TRANSISTOR 2SD788-5		R697	1-249-382-11	CARBON	1.2 5% 1/4W F
Q630	8-729-255-12	TRANSISTOR 2SC2551-0		R698	1-216-386-11	METAL OXIDE	0.56 5% 3W F
<b>&lt;RESISTOR&gt;</b>							
R604	1-202-933-11	FUSIBLE	0.1 10% 1/2W F	<b>&lt;RELAY&gt;</b>			
R605	1-249-428-11	CARBON	8.2K 5% 1/4W	RY601A	1-515-805-11	RELAY, POWER	
R606	1-214-919-00	METAL	180K 1% 1/2W	RY602A	1-515-805-11	RELAY, POWER	
R609	1-249-434-11	CARBON	27K 5% 1/4W F	<b>&lt;TRANSFORMER&gt;</b>			
R610	1-215-469-00	METAL	100K 1% 1/4W	T601	A 1-450-791-12	TRANSFORMER, POWER ISOLATION	
R611	1-249-421-11	CARBON	2.2K 5% 1/4W F	T603	A 1-424-020-11	PRT	
R612	1-202-883-11	SOLID	680K 20% 1/2W	T604	A 1-450-149-11	TRANSFORMER, HEATER	
R613	1-216-386-11	METAL OXIDE	0.56 5% 3W F	T605	A 1-424-023-12	TRANSFORMER, LINE FILTER	
R614	1-249-418-11	CARBON	1.2K 5% 1/4W	T606	A 1-421-372-21	TRANSFORMER, FERRITE (LFT)	
R615	1-215-438-00	METAL	5.1K 1% 1/4W	T608	A 1-423-665-11	TRANSFORMER, POWER	
R616	1-215-436-00	METAL	4.3K 1% 1/4W	<b>&lt;VARISTOR&gt;</b>			
R617	1-216-356-00	METAL OXIDE	3.9 5% 1W F	VDR601A	1-809-786-11	VARISTOR	
R618	1-249-418-11	CARBON	1.2K 5% 1/4W	*****			
R619	1-216-444-11	METAL OXIDE	82K 5% 1W F	*****			
R620	1-249-418-11	CARBON	1.2K 5% 1/4W F	*****			
R621	1-247-691-11	CARBON	18 5% 1/4W F	*****			
R622	1-249-424-11	CARBON	3.9K 5% 1/4W F	*****			
R623	1-249-417-11	CARBON	1K 5% 1/4W	*****			
R624	1-214-780-00	METAL	130K 1% 1/4W	*****			
R625	1-216-386-11	METAL OXIDE	0.56 5% 3W F	*****			
R626	1-216-356-00	METAL OXIDE	3.9 5% 1W F	*****			
R627	1-202-883-11	SOLID	680K 20% 1/2W	*****			
R628	1-249-410-11	CARBON	270 5% 1/4W F	*****			
R629	1-207-620-00	WIREDOWN	1 10% 3W F	*****			
R631	1-249-417-11	CARBON	1K 5% 1/4W F	*****			
R632	1-214-913-00	METAL	100K 1% 1/2W	*****			
R633	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R634	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R635	1-215-897-11	METAL OXIDE	6.8K 5% 2W F	*****			
R636	1-260-065-11	CARBON	1.2 5% 1/2W F	*****			
R638	1-249-405-11	CARBON	100 5% 1/4W F	*****			
R639	1-249-405-11	CARBON	100 5% 1/4W F	*****			
R640	1-249-421-11	CARBON	2.2K 5% 1/4W F	*****			
R641	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R642	1-215-421-00	METAL	1K 1% 1/4W	*****			
R643	1-260-123-11	CARBON	100K 5% 1/2W	*****			
R644	1-249-415-11	CARBON	680 5% 1/4W	*****			
R645	1-249-417-11	CARBON	1K 5% 1/4W	*****			
R649	1-249-424-11	CARBON	3.9K 5% 1/4W	*****			
R650	1-249-377-11	CARBON	0.47 5% 1/4W F	*****			
R651	1-215-429-00	METAL	2.2K 1% 1/4W	*****			
<input checked="" type="checkbox"/> R652 <input checked="" type="triangle"/>	METAL		1/4W	*****			
R654	1-215-429-00	METAL	2.2K 1% 1/4W	*****			
R655	1-249-426-11	CARBON	5.6K 5% 1/4W	*****			
R656	1-215-454-00	METAL	24K 1% 1/4W	*****			
R657	1-216-386-11	METAL OXIDE	0.56 5% 3W F	*****			
R660	1-249-418-11	CARBON	1.2K 5% 1/4W	*****			
R661 <input checked="" type="triangle"/>	1-202-884-91	SOLID	820K 20% 1/2W	*****			
R662 <input checked="" type="triangle"/>	1-205-900-11	WIREDOWN	1.2 5% 15W	*****			
R663 <input checked="" type="triangle"/>	1-215-904-91	METAL OXIDE	100K 5% 2W F	*****			
<b>&lt;CONNECTOR&gt;</b>							
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		<b>&lt;PICTURE TUBE SOCKET&gt;</b>			
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		CRT701A	1-251-026-11	SOCKET, PICTURE TUBE	
CR4	*1-564-511-31	PLUG, CONNECTOR 8P		<b>&lt;DIODE&gt;</b>			
CR15	*1-564-508-11	PLUG, CONNECTOR 5P		D701	8-719-911-19	DIODE 1SS119	
<b>&lt;CAPACITOR&gt;</b>				D702	8-719-911-19	DIODE 1SS119	
C701	1-162-115-00	CERAMIC	330PF 10% 2KV	D703	8-719-911-19	DIODE 1SS119	
C702	1-123-948-00	ELECT	22MF 20% 250V	<b>&lt;DIODE&gt;</b>			
C703	1-102-050-00	CERAMIC	0.01MF 500V	D701	8-719-911-19	DIODE 1SS119	
C704	1-162-115-00	CERAMIC	330PF 10% 2KV	D702	8-719-911-19	DIODE 1SS119	
C705	1-130-479-00	MYLAR	0.0047MF 5% 50V	D703	8-719-911-19	DIODE 1SS119	
C706	1-101-006-00	CERAMIC	0.047MF 50V	<b>&lt;CONNECTOR&gt;</b>			
C707	1-101-006-00	CERAMIC	0.047MF 50V	D701	8-719-911-19	DIODE 1SS119	
C709	1-124-120-11	ELECT	220MF 20% 16V	D702	8-719-911-19	DIODE 1SS119	
C710	1-124-120-11	ELECT	220MF 20% 16V	D703	8-719-911-19	DIODE 1SS119	
C711	1-102-114-00	CERAMIC	470PF 10% 50V	<b>&lt;PICTURE TUBE SOCKET&gt;</b>			
<b>&lt;PICTURE TUBE SOCKET&gt;</b>							
D701	8-719-911-19	DIODE 1SS119		<b>&lt;CONNECTOR&gt;</b>			
D702	8-719-911-19	DIODE 1SS119		D703	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119		<b>&lt;PICTURE TUBE SOCKET&gt;</b>			

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

**Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

**CR CG**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D704	8-719-911-19	DIODE 1SS119		C731	1-162-115-00	CERAMIC	330PF 10% 2KV
D705	8-719-911-19	DIODE 1SS119		C732	1-123-948-00	ELECT	22nF 20% 250V
D706	8-719-911-19	DIODE 1SS119		C733	1-102-050-00	CERAMIC	0.01MF 500V
D707	8-719-110-36	DIODE RD13ES-B2		C734	1-162-115-00	CERAMIC	330PF 10% 2KV
			<COIL>	C735	1-130-479-00	MYLAR	0.0047MF 5% 50V
L701	1-408-429-00	INDUCTOR 470UH		C736	1-101-006-00	CERAMIC	0.047MF 50V
L702	1-408-159-00	COIL, SPOOK CHoke 3.3UH		C737	1-101-006-00	CERAMIC	0.047MF 50V
L703	1-408-159-00	COIL, SPOOK CHoke 3.3UH		C739	1-124-120-11	ELECT	220nF 20% 16V
L704	1-408-413-00	INDUCTOR 22UH		C740	1-124-120-11	ELECT	220nF 20% 16V
			<NEON LAMP>	C741	1-102-114-00	CERAMIC	470PF 10% 50V
NL701	1-519-108-99	LAMP, NEON					<CONNECTOR>
NL702	1-519-108-99	LAMP, NEON		CG1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH)	1P
			<TRANSISTOR>	CG3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH)	3P
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE		CG16	*1-564-508-11	PLUG, CONNECTOR 5P	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE					<PICTURE TUBE SOCKET>
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK		CRT731A	1-251-026-11	SOCKET, PICTURE TUBE	
4-373-933-01	SHEET (TRANSISTOR), BN; Q703						
4-382-854-11	SCREW (M3X10), P, SW (+); Q703						
Q704	8-729-255-12	TRANSISTOR 2SC2551-0					<DIODE>
Q705	8-729-200-17	TRANSISTOR 2SA1091-0		D731	8-719-911-19	DIODE 1SS119	
Q706	8-729-200-17	TRANSISTOR 2SA1091-0		D732	8-719-911-19	DIODE 1SS119	
			<RESISTOR>	D733	8-719-911-19	DIODE 1SS119	
R701	1-202-847-00	SOLID 560K 20% 1/2W		D734	8-719-911-19	DIODE 1SS119	
R702	1-202-814-11	SOLID 33K 20% 1/2W		D735	8-719-911-19	DIODE 1SS119	
R703	1-202-818-00	SOLID 1K 20% 1/2W		D736	8-719-911-19	DIODE 1SS119	
R704	1-202-842-11	SOLID 220K 20% 1/2W		D737	8-719-911-19	DIODE 1SS119	
R705	1-202-828-11	SOLID 6.8K 20% 1/2W					<COIL>
R706	1-202-561-00	SOLID 330 20% 1/2W		L731	1-408-429-00	INDUCTOR 470UH	
R707	1-216-510-11	METAL OXIDE 8.2K 5% F		L732	1-408-159-00	COIL, SPOOK CHoke 3.3UH	
R708	1-249-405-11	CARBON 100 5% 1/4W F		L733	1-408-159-00	COIL, SPOOK CHoke 3.3UH	
R709	1-249-405-11	CARBON 100 5% 1/4W F		L734	1-408-413-00	INDUCTOR 22UH	
R710	1-215-927-00	METAL OXIDE 47K 5% 3W F					<NEON LAMP>
R711	1-249-405-11	CARBON 100 5% 1/4W F		NL731	1-519-108-99	LAMP, NEON	
R712	1-249-421-11	CARBON 2.2K 5% 1/4W F		NL732	1-519-108-99	LAMP, NEON	
R714	1-249-401-11	CARBON 47 5% 1/4W					<TRANSISTOR>
R716	1-249-405-11	CARBON 100 5% 1/4W		Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R717	1-249-403-11	CARBON 68 5% 1/4W		Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE	
R718	1-249-412-11	CARBON 390 5% 1/4W		Q733	8-729-119-80	TRANSISTOR 2SC2688-LK	
R719	1-249-410-11	CARBON 270 5% 1/4W		Q734	8-729-255-12	TRANSISTOR 2SC2551-0	
R720	1-249-405-11	CARBON 100 5% 1/4W		Q735	8-729-200-17	TRANSISTOR 2SA1091-0	
R721	1-249-409-11	CARBON 220 5% 1/4W		Q736	8-729-200-17	TRANSISTOR 2SA1091-0	
R722	1-215-423-00	METAL 1.2K 1% 1/4W					<SPARK GAP>
R723	1-249-410-11	CARBON 270 5% 1/4W					
R724	1-215-429-00	METAL 2.2K 1% 1/4W					
SG701	1-519-422-11	GAP, SPARK					<RESISTOR>
SG702	1-519-422-11	GAP, SPARK					
*****							
*A-1331-260-A CG BOARD, COMPLETE							
*****							
4-373-933-01	SHEET (TRANSISTOR), BN			R731	1-202-847-00	SOLID 560K 20% 1/2W	
4-382-854-11	SCREW (M3X10), P, SW (+)			R732	1-202-814-11	SOLID 33K 20% 1/2W	
				R733	1-202-818-00	SOLID 1K 20% 1/2W	
				R734	1-202-842-11	SOLID 220K 20% 1/2W	
				R735	1-202-828-11	SOLID 6.8K 20% 1/2W	
				R736	1-202-561-00	SOLID 330 20% 1/2W	
				R737	1-216-510-11	METAL OXIDE 8.2K 5% 5W	
				R738	1-249-405-11	CARBON 100 5% 1/4W F	

**CG**    **CB**    **V**

Les composants identifiés par  
une trame et une marque **▲**  
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark **▲** are criti-  
cal for safety.  
Replace only with part number  
specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK				REF. NO.	PART NO.	DESCRIPTION	REMARK											
R739	1-249-405-11	CARBON	100	5%	1/4W	F			<COIL>												
R740	1-215-927-00	METAL OXIDE	47K	5%	3W	F	L761	1-408-429-00	INDUCTOR	470UH											
R741	1-249-405-11	CARBON	100	5%	1/4W	F	L762	1-408-159-00	COIL, SPOOK	CHOKE 3.3UH											
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	F	L763	1-408-159-00	COIL, SPOOK	CHOKE 3.3UH											
R744	1-249-401-11	CARBON	47	5%	1/4W		L764	1-408-413-00	INDUCTOR	22UH											
R745	1-215-455-00	METAL	27K	1%	1/4W																
R746	1-249-405-11	CARBON	100	5%	1/4W																
R747	1-249-403-11	CARBON	68	5%	1/4W																
R748	1-249-412-11	CARBON	390	5%	1/4W		NL761	1-519-108-99	LAMP, NEON												
R749	1-249-410-11	CARBON	270	5%	1/4W		NL762	1-519-108-99	LAMP, NEON												
R750	1-249-405-11	CARBON	100	5%	1/4W																
R751	1-249-409-11	CARBON	220	5%	1/4W																
R752	1-215-423-00	METAL	1.2K	1%	1/4W																
R754	1-215-429-00	METAL	2.2K	1%	1/4W																
<b>&lt;SPARK GAP&gt;</b>																					
SG731	1-519-422-11	GAP, SPARK																			
SG732	1-519-422-11	GAP, SPARK																			
*****																					
*A-1331-261-A CB BOARD, COMPLETE																					
*****																					
4-373-933-01	SHEET (TRANSISTOR), BN						R761	1-202-847-00	SOLID	560K	20%	1/2W									
4-382-854-11	SCREW (M3X10), P, SW (+)						R762	1-202-814-11	SOLID	33K	20%	1/2W									
<b>&lt;CAPACITOR&gt;</b>																					
C761	1-162-115-00	CERAMIC	330PF	10%	2KV		R763	1-202-818-00	SOLID	1K	20%	1/2W									
C762	1-123-948-00	ELECT	22MF	20%	250V		R764	1-202-842-11	SOLID	220K	20%	1/2W									
C763	1-102-050-00	CERAMIC	0.01MF		500V		R765	1-202-828-11	SOLID	6.8K	20%	1/2W									
C764	1-162-115-00	CERAMIC	330PF	10%	2KV		R766	1-202-561-00	SOLID	330	20%	1/2W									
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V		R767	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F								
C766	1-101-006-00	CERAMIC	0.047MF		50V		R768	1-249-405-11	CARBON	100	5%	1/4W	F								
C767	1-101-006-00	CERAMIC	0.047MF		50V		R769	1-249-405-11	CARBON	100	5%	1/4W	F								
C769	1-124-120-11	ELECT	220MF	20%	16V		R770	1-215-927-00	METAL OXIDE	47K	5%	3W	F								
C770	1-124-120-11	ELECT	220MF	20%	16V		R771	1-249-405-11	CARBON	100	5%	1/4W	F								
C771	1-102-114-00	CERAMIC	470PF	10%	50V		R772	1-249-421-11	CARBON	2.2K	5%	1/4W	F								
<b>&lt;CONNECTOR&gt;</b>																					
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P					R773	1-249-413-11	CARBON	470	5%	1/4W									
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P					R774	1-249-401-11	CARBON	47	5%	1/4W									
CB4	*1-564-511-11	PLUG, CONNECTOR 8P					R776	1-249-405-11	CARBON	100	5%	1/4W									
CB5	*1-564-511-21	PLUG, CONNECTOR 8P					R777	1-249-403-11	CARBON	68	5%	1/4W									
CB17	*1-564-508-11	PLUG, CONNECTOR 5P					R778	1-249-412-11	CARBON	390	5%	1/4W									
<b>&lt;PICTURE TUBE SOCKET&gt;</b>																					
CRT761A 1-251-026-11 SOCKET, PICTURE TUBE																					
<b>&lt;DIODE&gt;</b>																					
D761	8-719-911-19	DIODE ISS119					R779	1-249-415-11	CARBON	680	5%	1/4W									
D762	8-719-911-19	DIODE ISS119					R780	1-249-405-11	CARBON	100	5%	1/4W									
D763	8-719-911-19	DIODE ISS119					R781	1-249-409-11	CARBON	220	5%	1/4W									
D764	8-719-911-19	DIODE ISS119					R782	1-215-423-00	METAL	1.2K	1%	1/4W									
D765	8-719-911-19	DIODE ISS119					R783	1-215-433-00	METAL	3.3K	1%	1/4W									
D766	8-719-911-19	DIODE ISS119					R784	1-215-429-00	METAL	2.2K	1%	1/4W									
D768	8-719-911-19	DIODE ISS119					R785	1-215-418-00	METAL	750	1%	1/4W									
D769	8-719-109-81	DIODE RD4.7ES-B2					<b>&lt;SPARK GAP&gt;</b>														
<b>&lt;PICTURE TUBE SOCKET&gt;</b>																					
SG761	1-519-422-11	GAP, SPARK					SG762	1-519-422-11	GAP, SPARK												
*****																					
*A-1342-214-A V BOARD, COMPLETE																					
*****																					
*4-395-527-01 HOLDER (B), TR																					
<b>&lt;CAPACITOR&gt;</b>																					
C1501	1-102-129-00	CERAMIC		0.01MF		10%		C1502	1-126-101-11	ELECT	100MF	20%	16V								
C1502	1-126-101-11	ELECT		0.047MF				C1504	1-106-383-00	MYLAR	0.047MF		200V								
C1504	1-106-383-00	MYLAR						C1505	1-124-907-11	ELECT	10MF	20%	50V								
C1505	1-124-907-11	ELECT						C1506	1-106-359-00	MYLAR	0.0047MF	10%	200V								

V

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C1507	1-106-367-00	MYLAR	0.01MF	10%	100V	Q1554	8-729-202-02	TRANSISTOR 2SB1015-Y
C1508	1-162-318-11	CERAMIC	0.001MF	10%	500V	Q1555	8-729-231-60	TRANSISTOR 2SD1406-YGR
C1509	1-106-367-00	MYLAR	0.01MF	10%	100V	Q1556	8-729-202-02	TRANSISTOR 2SB1015-Y
C1510	1-126-355-11	ELECT	33MF	20%	160V			
C1511	1-124-668-11	ELECT	2.2MF	20%	200V			
						<RESISTOR>		
C1512	1-106-391-12	MYLAR	0.1MF	10%	200V	R1501	1-249-451-11	CARBON
C1513	1-162-318-11	CERAMIC	0.001MF	10%	500V	R1502	1-249-414-11	CARBON
C1514	1-102-951-00	CERAMIC	15PF	5%	50V	R1503	1-247-734-11	CARBON
C1515	1-102-959-00	CERAMIC	22PF	5%	50V	R1504	1-249-384-11	CARBON
C1516	1-102-963-00	CERAMIC	33PF	5%	50V	R1505	1-249-405-11	CARBON
C1517	1-123-875-11	ELECT	10MF	20%	50V	R1506	1-249-419-11	CARBON
C1518	1-102-074-00	CERAMIC	0.001MF	10%	50V	R1507	1-249-412-11	CARBON
C1519	1-106-359-00	MYLAR	0.0047MF	10%	200V	R1508	1-249-436-11	CARBON
C1520	1-126-803-11	ELECT	47MF	20%	16V	R1509	1-249-421-11	CARBON
C1521	1-124-907-11	ELECT	10MF	20%	50V	R1510	1-249-436-11	CARBON
C1534	1-101-003-00	CERAMIC	0.0047MF		50V	R1511	1-249-418-11	CARBON
C1551	1-124-122-11	ELECT	100MF	20%	50V	R1512	1-249-441-11	CARBON
C1552	1-124-122-11	ELECT	100MF	20%	50V	R1513	1-249-432-11	CARBON
C1553	1-102-824-00	CERAMIC	470PF	5%	50V	R1514	1-249-405-11	CARBON
C1554	1-102-824-00	CERAMIC	470PF	5%	50V	R1515	1-249-435-11	CARBON
C1555	1-130-483-00	MYLAR	0.01MF	5%	50V	R1517	1-247-713-11	CARBON
C1556	1-130-483-00	MYLAR	0.01MF	5%	50V	R1519	1-215-916-00	METAL OXIDE
C1557	1-102-824-00	CERAMIC	470PF	5%	50V	R1520	1-249-432-11	CARBON
C1558	1-102-824-00	CERAMIC	470PF	5%	50V	R1521	1-249-414-11	CARBON
C1559	1-102-824-00	CERAMIC	470PF	5%	50V	R1522	1-249-384-11	CARBON
C1560	1-102-824-00	CERAMIC	470PF	5%	50V	R1523	1-249-400-11	CARBON
C1561	1-130-483-00	MYLAR	0.01MF	5%	50V	R1524	1-249-418-11	CARBON
C1562	1-130-483-00	MYLAR	0.01MF	5%	50V	R1525	1-249-421-11	CARBON
C1563	1-130-483-00	MYLAR	0.01MF	5%	50V	R1526	1-249-426-11	CARBON
						R1527	1-249-414-11	CARBON
						R1528	1-249-429-11	CARBON
D1501	8-719-911-19	DIODE ISS119				R1529	1-249-414-11	CARBON
D1502	8-719-911-19	DIODE ISS119				R1530	1-216-451-11	METAL OXIDE
D1503	8-719-911-19	DIODE ISS119				R1531	1-249-429-11	CARBON
D1504	8-719-911-19	DIODE ISS119				R1532	1-249-421-11	CARBON
D1505	8-719-911-19	DIODE ISS119				R1533	1-247-903-91	CARBON
D1506	8-719-911-19	DIODE ISS119				R1534	1-249-423-11	CARBON
D1507	8-719-110-88	DIODE RD39ES-B2				R1535	1-249-392-11	CARBON
D1508	8-719-110-88	DIODE RD39ES-B2				R1540	1-215-445-00	METAL
D1509	8-719-911-19	DIODE ISS119				R1541	1-215-445-00	METAL
						R1542	1-215-445-00	METAL
						R1551	1-215-445-00	METAL
						R1552	1-215-423-00	METAL
IC1551	8-759-145-58	IC UPC4558C				R1553	1-249-417-11	CARBON
IC1552	8-759-912-77	IC LM324N				R1554	1-215-445-00	METAL
						R1555	1-215-375-00	METAL
L1502	1-408-418-00	INDUCTOR	56UH			R1556	1-215-375-00	METAL
						R1557	1-215-375-00	METAL
						R1558	1-215-445-00	METAL
						R1559	1-215-445-00	METAL
						R1560	1-215-445-00	METAL
Q1501	8-729-208-39	TRANSISTOR 2SA1306A-Y				R1561	1-215-423-00	METAL
Q1502	8-729-017-06	TRANSISTOR 2SC4793				R1562	1-215-423-00	METAL
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE				R1563	1-215-445-00	METAL
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE				R1564	1-249-417-11	CARBON
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE				R1565	1-215-445-00	METAL
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE				R1566	1-215-375-00	METAL
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE				R1567	1-215-375-00	METAL
Q1508	8-729-142-86	TRANSISTOR 2SC3733				R1568	1-215-375-00	METAL
Q1551	8-729-231-60	TRANSISTOR 2SD1406-YGR				R1569	1-215-445-00	METAL
Q1552	8-729-202-02	TRANSISTOR 2SB1015-Y				R1570	1-215-445-00	METAL
Q1553	8-729-231-60	TRANSISTOR 2SD1406-YGR				R1571	1-249-417-11	CARBON
						R1572	1-215-445-00	METAL

V D

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK		
R1573	1-215-375-00	METAL	12	1%	1/4W	C1705	1-102-963-00	CERAMIC	33PF	5%	50V
R1574	1-215-375-00	METAL	12	1%	1/4W	C1706	1-102-963-00	CERAMIC	33PF	5%	50V
R1575	1-215-375-00	METAL	12	1%	1/4W	C1707	1-102-963-00	CERAMIC	33PF	5%	50V
R1576	1-215-445-00	METAL	10K	1%	1/4W	C1708	1-102-963-00	CERAMIC	33PF	5%	50V
R1577	1-215-445-00	METAL	10K	1%	1/4W	C1709	1-102-963-00	CERAMIC	33PF	5%	50V
R1578	1-249-417-11	CARBON	1K	5%	1/4W	C1710	1-102-963-00	CERAMIC	33PF	5%	50V
R1579	1-249-417-11	CARBON	1K	5%	1/4W	C1711	1-126-233-11	ELECT	22MF	20%	50V
R1580	1-249-417-11	CARBON	1K	5%	1/4W	C1712	1-124-916-11	ELECT	22MF	20%	25V
R1581	1-249-432-11	CARBON	18K	5%	1/4W	C1713	1-102-074-00	CERAMIC	0.001MF	10%	50V
R1582	1-249-432-11	CARBON	18K	5%	1/4W	C1714	1-124-478-11	ELECT	100MF	20%	25V
					C1715	1-124-478-11	ELECT	100MF	20%	25V	
		<CONNECTOR>									
V2	*1-564-518-11	PLUG, CONNECTOR 3P				C1716	1-126-803-11	ELECT	47MF	20%	25V
V22	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P				C1717	1-126-803-11	ELECT	47MF	20%	25V
						C1718	1-102-074-00	CERAMIC	0.001MF	10%	50V
						C1719	1-124-234-00	ELECT	22MF	20%	16V
						C1720	1-130-491-00	MYLAR	0.047MF	5%	50V
	*A-1346-117-A	D BOARD, COMPLETE				C1721	1-130-491-00	MYLAR	0.047MF	5%	50V
		*****				C1722	1-130-491-00	MYLAR	0.047MF	5%	50V
	1-533-223-11	CLIP, FUSE				C1724	1-124-234-00	ELECT	22MF	20%	16V
	4-382-854-11	SCREW (M3X10), P, SW (+)				C1725	1-102-963-00	CERAMIC	33PF	5%	50V
	*4-395-527-01	HOLDER (B), TR				C1726	1-124-122-11	ELECT	100MF	20%	35V
		<CAPACITOR>				C1727	1-102-963-00	CERAMIC	33PF	5%	50V
						C1728	1-102-963-00	CERAMIC	33PF	5%	50V
						C1729	1-108-426-91	MYLAR	0.027MF	200V	
						C1730	1-102-963-00	CERAMIC	33PF	5%	50V
						C1731	1-124-122-11	ELECT	100MF	20%	35V
C901	1-126-320-11	ELECT	10MF	20%	16V						
C902	1-124-477-11	ELECT	47MF	20%	16V						
C903	1-130-471-00	MYLAR	0.001MF	5%	50V	C1732	1-108-426-91	MYLAR	0.027MF	200V	
C904	1-130-471-00	MYLAR	0.001MF	5%	50V	C1733	1-102-963-00	CERAMIC	33PF	5%	50V
C905	1-124-477-11	ELECT	47MF	20%	16V	C1734	1-102-963-00	CERAMIC	33PF	5%	50V
C906	1-126-233-11	ELECT	22MF	20%	50V	C1735	1-124-122-11	ELECT	100MF	20%	35V
C907	1-126-101-11	ELECT	100MF	20%	16V	C1736	1-108-426-91	MYLAR	0.027MF	200V	
C908	1-124-907-11	ELECT	10MF	20%	50V						
C909	1-130-483-00	MYLAR	0.01MF	5%	50V	C1737	1-124-937-11	ELECT	10MF	20%	16V
C911	1-131-341-00	TANTALUM	0.1MF	20%	16V	C1738	1-124-122-11	ELECT	100MF	20%	35V
						C1739	1-136-153-00	FILM	0.01MF	5%	50V
						C1740	1-124-122-11	ELECT	100MF	20%	35V
C912	1-124-903-11	ELECT	1MF	20%	50V	C1741	1-124-122-11	ELECT	100MF	20%	35V
C913	1-126-233-11	ELECT	22MF	20%	50V						
C914	1-126-803-11	ELECT	47MF	20%	16V	C1742	1-126-104-11	ELECT	470MF	20%	35V
C915	1-124-927-11	ELECT	4.7MF	20%	50V	C1744	1-124-478-11	ELECT	100MF	20%	25V
C916	1-102-074-00	CERAMIC	0.001MF	10%	50V	C1745	1-126-375-11	ELECT	100MF	20%	25V
C917	1-130-471-00	MYLAR	0.001MF	5%	50V	C1755	1-106-220-00	MYLAR	0.1MF	10%	100V
C918	1-102-963-00	CERAMIC	33PF	5%	50V	C1756	1-106-220-00	MYLAR	0.1MF	10%	100V
C919	1-102-963-00	CERAMIC	33PF	5%	50V	C1757	1-106-220-00	MYLAR	0.1MF	10%	100V
C920	1-102-963-00	CERAMIC	33PF	5%	50V	C1758	1-106-220-00	MYLAR	0.1MF	10%	100V
C921	1-102-963-00	CERAMIC	33PF	5%	50V	C1759	1-106-220-00	MYLAR	0.1MF	10%	100V
C922	1-102-963-00	CERAMIC	33PF	5%	50V	C1760	1-106-220-00	MYLAR	0.1MF	10%	100V
C923	1-102-963-00	CERAMIC	33PF	5%	50V	C1763	1-126-096-11	ELECT	10MF	20%	25V
C931	1-102-973-00	CERAMIC	100PF	5%	50V	C1764	1-124-477-11	ELECT	47MF	20%	16V
C932	1-124-903-11	ELECT	1MF	20%	50V	C1765	1-124-477-11	ELECT	47MF	20%	16V
C933	1-124-234-00	ELECT	22MF	20%	16V	C1766	1-126-101-11	ELECT	100MF	20%	16V
C934	1-124-234-00	ELECT	22MF	20%	16V	C1769	1-126-157-11	ELECT	10MF	20%	16V
C935	1-124-234-00	ELECT	22MF	20%	16V	C1770	1-130-495-00	MYLAR	0.1MF	5%	50V
C936	1-124-234-00	ELECT	22MF	20%	16V						
C937	1-124-234-00	ELECT	22MF	20%	16V	C1771	1-126-096-11	ELECT	10MF	20%	25V
C938	1-124-234-00	ELECT	22MF	20%	16V	C1772	1-126-096-11	ELECT	10MF	20%	25V
C939	1-124-234-00	ELECT	22MF	20%	16V	C1861	1-102-074-00	CERAMIC	0.001MF	10%	50V
C940	1-124-916-11	ELECT	22MF	20%	25V						
C941	1-102-123-00	CERAMIC	0.0033MF	10%	50V						
C942	1-102-123-00	CERAMIC	0.0033MF	10%	50V	D1	*1-564-510-11	PLUG, CONNECTOR 7P			
C943	1-102-123-00	CERAMIC	0.0033MF	10%	50V	D2	*1-564-511-11	PLUG, CONNECTOR 8P			
C1701	1-124-907-11	ELECT	10MF	20%	50V	D3	*1-564-512-11	PLUG, CONNECTOR 9P			
C1702	1-124-907-11	ELECT	10MF	20%	50V	D4	*1-564-508-11	PLUG, CONNECTOR 5P			
C1703	1-124-907-11	ELECT	10MF	20%	50V	D5	*1-564-511-11	PLUG, CONNECTOR 8P			
C1704	1-123-875-11	ELECT	10MF	20%	50V	D6	1-691-169-11	PIN, CONNECTOR 12P			
		<CONNECTOR>									

D

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifique.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<COIL>											
D7	*1-564-507-11	PLUG, CONNECTOR 4P		L901	1-459-313-00	COIL WITH CORE (HWC)					
D8	*1-564-506-11	PLUG, CONNECTOR 3P		L902	1-459-313-00	COIL WITH CORE (HWC)					
D9	*1-564-507-11	PLUG, CONNECTOR 4P		L903	1-459-313-00	COIL WITH CORE (HWC)					
D14	*1-564-513-31	PLUG, CONNECTOR 10P		L904	1-459-313-00	COIL WITH CORE (HWC)					
<DIODE>											
D901	8-719-911-19	DIODE ISS119		<TRANSISTOR>							
D902	8-719-911-19	DIODE ISS119		Q902	8-729-900-89	TRANSISTOR DTC144ES					
D1701	8-719-900-95	DIODE V09G		Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1702	8-719-911-19	DIODE ISS119		Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1703	8-719-900-95	DIODE V09G		Q908	8-729-900-89	TRANSISTOR DTC144ES					
D1704	8-719-900-95	DIODE V09G		Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1705	8-719-900-95	DIODE V09G		Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D1706	8-719-900-95	DIODE V09G		Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D1707	8-719-911-19	DIODE ISS119		Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D1708	8-719-911-19	DIODE ISS119		<RESISTOR>							
D1709	8-719-911-19	DIODE ISS119		R901	1-215-463-00	METAL	56K	1%	1/4W		
D1710	8-719-911-19	DIODE ISS119		R902	1-215-463-00	METAL	56K	1%	1/4W		
D1711	8-719-911-19	DIODE ISS119		R903	1-215-449-00	METAL	15K	1%	1/4W		
D1712	8-719-911-19	DIODE ISS119		R904	1-215-455-00	METAL	27K	1%	1/4W		
D1713	8-719-911-19	DIODE ISS119		R905	1-215-449-00	METAL	15K	1%	1/4W		
D1714	8-719-911-19	DIODE ISS119		R906	1-215-469-00	METAL	100K	1%	1/4W		
D1715	8-719-911-19	DIODE ISS119		R907	1-215-469-00	METAL	100K	1%	1/4W		
D1716	8-719-911-19	DIODE ISS119		R908	1-215-469-00	METAL	100K	1%	1/4W		
D1717	8-719-911-19	DIODE ISS119		R909	1-215-473-00	METAL	150K	1%	1/4W		
D1718	8-719-911-19	DIODE ISS119		R910	1-215-437-00	METAL	4.7K	1%	1/4W		
D1720	8-719-109-50	DIODE RD2.OES-B1		R911	1-215-453-00	METAL	22K	1%	1/4W		
D1721	8-719-109-50	DIODE RD2.OES-B1		R912	1-215-453-00	METAL	22K	1%	1/4W		
D1722	8-719-109-50	DIODE RD2.OES-B1		R913	1-215-437-00	METAL	4.7K	1%	1/4W		
D1723	8-719-109-50	DIODE RD2.OES-B1		R914	1-215-453-00	METAL	22K	1%	1/4W		
<FUSE>											
F901	A 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V		R915	1-215-413-00	METAL	470	1%	1/4W		
F902	A 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V		R916	1-215-457-00	METAL	33K	1%	1/4W		
<IC>											
IC901	8-759-145-58	IC UPC4558C		R917	1-215-453-00	METAL	22K	1%	1/4W		
IC902	8-752-033-68	IC CXA1268P		R919	1-215-399-00	METAL	120	1%	1/4W		
IC903	8-759-701-56	IC NJM78M05FA		R920	1-215-399-00	METAL	120	1%	1/4W		
IC904	8-759-701-65	IC NJM79M05FA		R921	1-215-399-00	METAL	120	1%	1/4W		
IC905	8-759-701-89	IC NJM7915FA		R922	1-215-399-00	METAL	120	1%	1/4W		
IC906	8-759-148-84	IC UPC2415HF		R923	1-215-441-00	METAL	6.8K	1%	1/4W		
IC907	8-759-140-53	IC UPD4053BC		R924	1-215-441-00	METAL	6.8K	1%	1/4W		
IC908	8-759-145-58	IC UPC4558C		R925	1-215-441-00	METAL	6.8K	1%	1/4W		
IC910	8-759-054-40	IC PA0036		R926	1-215-463-00	METAL	56K	1%	1/4W		
IC1701	8-759-602-19	IC M5220L		R927	1-215-463-00	METAL	56K	1%	1/4W		
IC1702	8-759-602-19	IC M5220L		R928	1-215-461-00	METAL	47K	1%	1/4W		
IC1703	8-759-602-19	IC M5220L		R929	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1704	8-749-923-16	IC STK4278-L		R930	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1705	8-749-923-16	IC STK4278-L		R931	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1706	8-759-113-13	IC UPC1498H		R932	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1707	8-759-113-13	IC UPC1498H		R933	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1708	8-759-113-13	IC UPC1498H		R934	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1709	8-759-145-58	IC UPC4558C		R935	1-215-439-00	METAL	5.6K	1%	1/4W		
IC1710	8-759-145-58	IC UPC4558C		R936	1-215-439-00	METAL	5.6K	1%	1/4W		
IC1711	8-759-145-58	IC UPC4558C		R937	1-215-439-00	METAL	5.6K	1%	1/4W		
IC1712	8-759-145-58	IC UPC4558C		R938	1-215-417-00	METAL	680	1%	1/4W		
IC1713	8-759-145-58	IC UPC4558C		R939	1-215-433-00	METAL	3.3K	1%	1/4W		
IC1714	8-759-145-58	IC UPC4558C		R940	1-215-429-00	METAL	2.2K	1%	1/4W		
IC1715	8-759-145-58	IC UPC4558C		R941	1-215-441-00	METAL	6.8K	1%	1/4W		
IC1716	8-759-145-58	IC UPC4558C		R942	1-215-451-00	METAL	18K	1%	1/4W		
IC1717	8-759-145-58	IC UPC4558C		R943	1-215-441-00	METAL	6.8K	1%	1/4W		
IC1718	8-759-145-58	IC UPC4558C		R944	1-215-439-00	METAL	5.6K	1%	1/4W		
IC1719	8-759-145-58	IC UPC4558C		R945	1-215-445-00	METAL	10K	1%	1/4W		
IC1720	8-759-145-58	IC UPC4558C		R946	1-215-445-00	METAL	10K	1%	1/4W		
IC1721	8-759-145-58	IC UPC4558C		R947	1-215-439-00	METAL	5.6K	1%	1/4W		

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R948	1-215-447-00	METAL	12K 1% 1/4W	R1714	1-249-411-11	CARBON	330 5% 1/4W
R949	1-215-439-00	METAL	5.6K 1% 1/4W	R1715	1-249-411-11	CARBON	330 5% 1/4W
R950	1-215-429-00	METAL	2.2K 1% 1/4W	R1716	1-215-886-11	METAL OXIDE	100 5% 2W F
R951	1-215-429-00	METAL	2.2K 1% 1/4W	R1717	1-249-411-11	CARBON	330 5% 1/4W
R952	1-215-429-00	METAL	2.2K 1% 1/4W	R1718	1-249-417-11	CARBON	1K 5% 1/4W
R953	1-215-439-00	METAL	5.6K 1% 1/4W	R1719	1-214-792-00	METAL	1 1% 1/2W
R954	1-215-439-00	METAL	5.6K 1% 1/4W	R1720	1-249-411-11	CARBON	330 5% 1/4W
R955	1-215-435-00	METAL	3.9K 1% 1/4W	R1721	1-249-417-11	CARBON	1K 5% 1/4W
R956	1-215-437-00	METAL	4.7K 1% 1/4W	R1722	1-249-411-11	CARBON	330 5% 1/4W
R957	1-215-441-00	METAL	6.8K 1% 1/4W	R1723	1-249-417-11	CARBON	1K 5% 1/4W
R958	1-215-437-00	METAL	4.7K 1% 1/4W	R1724	1-215-886-11	METAL OXIDE	100 5% 2W F
R959	1-215-439-00	METAL	5.6K 1% 1/4W	R1725	1-215-886-11	METAL OXIDE	100 5% 2W F
R960	1-215-439-00	METAL	5.6K 1% 1/4W	R1726	1-215-886-11	METAL OXIDE	100 5% 2W F
R961	1-215-439-00	METAL	5.6K 1% 1/4W	R1727	1-214-792-00	METAL	1 1% 1/2W
R962	1-215-441-00	METAL	6.8K 1% 1/4W	R1728	1-214-792-00	METAL	1 1% 1/2W
R963	1-215-441-00	METAL	6.8K 1% 1/4W	R1729	1-214-792-00	METAL	1 1% 1/2W
R964	1-215-441-00	METAL	6.8K 1% 1/4W	R1730	1-249-405-11	CARBON	100 5% 1/4W
R965	1-215-909-11	METAL OXIDE	47 5% 3W F	R1731	1-249-417-11	CARBON	1K 5% 1/4W
R966	1-215-469-00	METAL	100K 1% 1/4W	R1732	1-249-405-11	CARBON	100 5% 1/4W
R967	1-215-421-00	METAL	1K 1% 1/4W	R1733	1-249-405-11	CARBON	100 5% 1/4W
R968	1-215-437-00	METAL	4.7K 1% 1/4W	R1734	1-249-405-11	CARBON	100 5% 1/4W
R969	1-249-421-11	CARBON	2.2K 5% 1/4W	R1735	1-249-405-11	CARBON	100 5% 1/4W
R970	1-215-909-11	METAL OXIDE	47 5% 3W F	R1736	1-249-423-11	CARBON	3.3K 5% 1/4W
R971	1-249-421-11	CARBON	2.2K 5% 1/4W	R1737	1-249-423-11	CARBON	3.3K 5% 1/4W
R972	1-249-431-11	CARBON	15K 5% 1/4W	R1738	1-249-423-11	CARBON	3.3K 5% 1/4W
R973	1-249-431-11	CARBON	15K 5% 1/4W	R1739	1-249-423-11	CARBON	3.3K 5% 1/4W
R974	1-215-399-00	METAL	120 1% 1/4W	R1740	1-249-417-11	CARBON	1K 5% 1/4W
R975	1-215-399-00	METAL	120 1% 1/4W	R1741	1-249-423-11	CARBON	3.3K 5% 1/4W
R976	1-215-399-00	METAL	120 1% 1/4W	R1742	1-249-423-11	CARBON	3.3K 5% 1/4W
R977	1-215-399-00	METAL	120 1% 1/4W	R1743	1-249-417-11	CARBON	1K 5% 1/4W
R978	1-215-399-00	METAL	120 1% 1/4W	R1744	1-249-411-11	CARBON	330 5% 1/4W
R979	1-215-399-00	METAL	120 1% 1/4W	R1745	1-249-405-11	CARBON	100 5% 1/4W
R980	1-215-399-00	METAL	120 1% 1/4W	R1746	1-214-792-00	METAL	1 1% 1/2W
R981	1-215-399-00	METAL	120 1% 1/4W	R1747	1-215-886-11	METAL OXIDE	100 5% 2W F
R982	1-249-431-11	CARBON	15K 5% 1/4W	R1748	1-215-421-00	METAL	1K 1% 1/4W
R983	1-249-431-11	CARBON	15K 5% 1/4W	R1749	1-215-421-00	METAL	1K 1% 1/4W
R984	1-214-804-11	METAL	3.3 1% 1/2W	R1750	1-215-421-00	METAL	1K 1% 1/4W
R985	1-214-804-11	METAL	3.3 1% 1/2W	R1751	1-215-421-00	METAL	1K 1% 1/4W
R986	1-214-804-11	METAL	3.3 1% 1/2W	R1752	1-215-421-00	METAL	1K 1% 1/4W
R987	1-215-421-00	METAL	1K 1% 1/4W	R1753	1-215-421-00	METAL	1K 1% 1/4W
R988	1-215-421-00	METAL	1K 1% 1/4W	R1754	1-214-792-00	METAL	1 1% 1/2W
R989	1-215-421-00	METAL	1K 1% 1/4W	R1755	1-215-469-00	METAL	100K 1% 1/4W
R990	1-215-421-00	METAL	1K 1% 1/4W	R1756	1-215-437-00	METAL	4.7K 1% 1/4W
R991	1-215-421-00	METAL	1K 1% 1/4W	R1757	1-215-437-00	METAL	4.7K 1% 1/4W
R992	1-215-421-00	METAL	1K 1% 1/4W	R1758	1-215-437-00	METAL	4.7K 1% 1/4W
R993	1-249-429-11	CARBON	10K 5% 1/4W	R1759	1-249-405-11	CARBON	100 5% 1/4W
R994	1-249-429-11	CARBON	10K 5% 1/4W	R1760	1-249-427-11	CARBON	6.8K 5% 1/4W
R995	1-215-457-00	METAL	33K 1% 1/4W	R1761	1-249-419-11	CARBON	1.5K 5% 1/4W
R997	1-215-463-00	METAL	56K 1% 1/4W	R1762	1-215-445-00	METAL	10K 1% 1/4W
R998	1-215-409-00	METAL	330 1% 1/4W	R1763	1-249-427-11	CARBON	6.8K 5% 1/4W
R999	1-215-455-00	METAL	27K 1% 1/4W	R1764	1-249-419-11	CARBON	1.5K 5% 1/4W
R1701	1-249-411-11	CARBON	330 5% 1/4W	R1765	1-249-419-11	CARBON	1.5K 5% 1/4W
R1702	1-249-427-11	CARBON	6.8K 5% 1/4W	R1766	1-249-427-11	CARBON	6.8K 5% 1/4W
R1703	1-249-427-11	CARBON	6.8K 5% 1/4W	R1767	1-249-427-11	CARBON	6.8K 5% 1/4W
R1704	1-249-411-11	CARBON	330 5% 1/4W	R1768	1-249-439-11	CARBON	68K 5% 1/4W
R1705	1-249-411-11	CARBON	330 5% 1/4W	R1769	1-215-445-00	METAL	10K 1% 1/4W
R1706	1-249-427-11	CARBON	6.8K 5% 1/4W	R1770	1-249-405-11	CARBON	100 5% 1/4W
R1707	1-249-411-11	CARBON	330 5% 1/4W	R1771	1-249-405-11	CARBON	100 5% 1/4W
R1708	1-249-427-11	CARBON	6.8K 5% 1/4W	R1772	1-215-429-00	METAL	2.2K 1% 1/4W
R1709	1-249-427-11	CARBON	6.8K 5% 1/4W	R1773	1-215-429-00	METAL	2.2K 1% 1/4W
R1710	1-249-411-11	CARBON	330 5% 1/4W	R1774	1-215-421-00	METAL	1K 1% 1/4W
R1711	1-249-411-11	CARBON	330 5% 1/4W	R1775	1-249-429-11	CARBON	10K 5% 1/4W
R1712	1-249-427-11	CARBON	6.8K 5% 1/4W	R1776	1-215-421-00	METAL	1K 1% 1/4W
R1713	1-215-886-11	METAL OXIDE	100 5% 2W F	R1777	1-249-429-11	CARBON	10K 5% 1/4W
				R1778	1-215-421-00	METAL	1K 1% 1/4W

D

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK		
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	R1861	1-215-453-00	METAL	22K	1% 1/4W	
R1778	1-215-421-00	METAL	1K	1%	1/4W	R1862	1-215-453-00	METAL	22K	1% 1/4W	
R1779	1-215-898-11	METAL OXIDE	10K	5%	2W	F	R1863	1-215-397-00	METAL	100	1% 1/4W
R1780	1-214-804-11	METAL	3.3	1%	1/2W	R1864	1-215-437-00	METAL	4.7K	1% 1/4W	
R1781	1-214-804-11	METAL	3.3	1%	1/2W	R1865	1-215-453-00	METAL	22K	1% 1/4W	
R1782	1-215-898-11	METAL OXIDE	10K	5%	2W	F	R1866	1-215-453-00	METAL	22K	1% 1/4W
R1783	1-214-804-11	METAL	3.3	1%	1/2W	R1867	1-215-437-00	METAL	4.7K	1% 1/4W	
R1784	1-214-804-11	METAL	3.3	1%	1/2W	F	R1868	1-215-439-00	METAL	5.6K	1% 1/4W
R1785	1-215-898-11	METAL OXIDE	10K	5%	2W	R1869	1-215-445-00	METAL	10K	1% 1/4W	
R1786	1-214-804-11	METAL	3.3	1%	1/2W	R1870	1-215-445-00	METAL	10K	1% 1/4W	
R1787	1-214-804-11	METAL	3.3	1%	1/2W	R1871	1-215-445-00	METAL	10K	1% 1/4W	
R1788	1-249-433-11	CARBON	22K	5%	1/4W	R1872	1-215-437-00	METAL	4.7K	1% 1/4W	
R1789	1-249-441-11	CARBON	100K	5%	1/4W	R1873	1-215-437-00	METAL	4.7K	1% 1/4W	
R1790	1-249-433-11	CARBON	22K	5%	1/4W	R1874	1-215-437-00	METAL	4.7K	1% 1/4W	
R1791	1-249-429-11	CARBON	10K	5%	1/4W	R1875	1-215-437-00	METAL	4.7K	1% 1/4W	
R1792	1-215-445-00	METAL	10K	1%	1/4W	R1876	1-215-437-00	METAL	4.7K	1% 1/4W	
R1793	1-249-405-11	CARBON	100	5%	1/4W	R1877	1-215-437-00	METAL	4.7K	1% 1/4W	
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	R1878	1-215-475-00	METAL	180K	1% 1/4W	
R1795	1-249-433-11	CARBON	22K	5%	1/4W	R1879	1-215-475-00	METAL	180K	1% 1/4W	
R1796	1-249-405-11	CARBON	100	5%	1/4W	R1880	1-215-475-00	METAL	180K	1% 1/4W	
R1797	1-249-429-11	CARBON	10K	5%	1/4W	R1881	1-215-461-00	METAL	47K	1% 1/4W	
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	R1882	1-215-445-00	METAL	10K	1% 1/4W	
R1800	1-249-405-11	CARBON	100	5%	1/4W	R1883	1-215-453-00	METAL	22K	1% 1/4W	
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	R1884	1-215-397-00	METAL	100	1% 1/4W	
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	R1885	1-215-445-00	METAL	10K	1% 1/4W	
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	R1886	1-215-445-00	METAL	10K	1% 1/4W	
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	R1887	1-215-397-00	METAL	100	1% 1/4W	
R1806	1-249-405-11	CARBON	100	5%	1/4W	R1888	1-215-461-00	METAL	47K	1% 1/4W	
R1807	1-249-405-11	CARBON	100	5%	1/4W	R1889	1-215-457-00	METAL	33K	1% 1/4W	
R1808	1-214-792-00	METAL	1	1%	1/2W	R1890	1-215-457-00	METAL	33K	1% 1/4W	
R1809	1-214-792-00	METAL	1	1%	1/2W	R1891	1-215-443-00	METAL	8.2K	1% 1/4W	
R1810	1-214-792-00	METAL	1	1%	1/2W	R1892	1-215-445-00	METAL	10K	1% 1/4W	
R1811	1-214-792-00	METAL	1	1%	1/2W	R1894	1-215-429-00	METAL	2.2K	1% 1/4W	
R1812	1-214-792-00	METAL	1	1%	1/2W	R1895	1-215-445-00	METAL	10K	1% 1/4W	
R1813	1-214-792-00	METAL	1	1%	1/2W	R1896	1-215-445-00	METAL	10K	1% 1/4W	
R1814	1-249-431-11	CARBON	15K	5%	1/4W	R1897	1-215-449-00	METAL	15K	1% 1/4W	
R1815	1-247-885-00	CARBON	180K	5%	1/4W	R1898	1-215-445-00	METAL	10K	1% 1/4W	
R1816	1-249-431-11	CARBON	15K	5%	1/4W	R1899	1-215-421-00	METAL	1K	1% 1/4W	
R1817	1-247-885-00	CARBON	180K	5%	1/4W	R1900	1-215-429-00	METAL	2.2K	1% 1/4W	
R1818	1-249-405-11	CARBON	100	5%	1/4W	R1901	1-215-449-00	METAL	15K	1% 1/4W	
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	R1902	1-215-445-00	METAL	10K	1% 1/4W	
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	R1903	1-215-445-00	METAL	10K	1% 1/4W	
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	R1904	1-215-445-00	METAL	10K	1% 1/4W	
R1822	1-215-445-00	METAL	10K	1%	1/4W	R1905	1-215-445-00	METAL	10K	1% 1/4W	
R1823	1-215-445-00	METAL	10K	1%	1/4W	R1906	1-215-429-00	METAL	2.2K	1% 1/4W	
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	R1907	1-215-445-00	METAL	10K	1% 1/4W	
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	R1908	1-215-445-00	METAL	10K	1% 1/4W	
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	R1909	1-215-445-00	METAL	10K	1% 1/4W	
R1827	1-215-445-00	METAL	10K	1%	1/4W	R1910	1-215-445-00	METAL	10K	1% 1/4W	
R1828	1-215-445-00	METAL	10K	1%	1/4W	R1911	1-215-453-00	METAL	22K	1% 1/4W	
R1829	1-249-434-11	CARBON	27K	5%	1/4W	R1916	1-215-423-00	METAL	1.2K	1% 1/4W	
R1830	1-249-434-11	CARBON	27K	5%	1/4W	R1920	1-215-453-00	METAL	22K	1% 1/4W	
R1831	1-249-405-11	CARBON	100	5%	1/4W	R1921	1-215-445-00	METAL	10K	1% 1/4W	
R1832	1-215-471-00	METAL	120K	1%	1/4W	R1922	1-215-445-00	METAL	10K	1% 1/4W	
R1833	1-215-471-00	METAL	120K	1%	1/4W	R1924	1-215-429-00	METAL	2.2K	1% 1/4W	
R1834	1-215-471-00	METAL	120K	1%	1/4W	R1925	1-215-429-00	METAL	2.2K	1% 1/4W	
R1835	1-215-437-00	METAL	4.7K	1%	1/4W	R1926	1-215-429-00	METAL	2.2K	1% 1/4W	
R1836	1-215-437-00	METAL	4.7K	1%	1/4W	R1927	1-215-445-00	METAL	10K	1% 1/4W	
R1837	1-215-421-00	METAL	1K	1%	1/4W	R1928	1-215-421-00	METAL	1K	1% 1/4W	
R1838	1-249-431-11	CARBON	15K	5%	1/4W	R1929	1-215-445-00	METAL	10K	1% 1/4W	
R1839	1-249-431-11	CARBON	15K	5%	1/4W	R1930	1-215-397-00	METAL	100	1% 1/4W	
R1858	1-215-445-00	METAL	10K	1%	1/4W	R1931	1-215-397-00	METAL	100	1% 1/4W	
R1859	1-215-445-00	METAL	10K	1%	1/4W	R1932	1-215-453-00	METAL	22K	1% 1/4W	
R1860	1-215-397-00	METAL	100	1%	1/4W						

**D DS**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1933	1-215-453-00	METAL 22K 1% 1/4W		RV960	1-241-630-11	RES, ADJ, CARBON 10K	
R1934	1-215-429-00	METAL 2.2K 1% 1/4W		RV961	1-241-631-11	RES, ADJ, CARBON 22K	
R1937	1-215-445-00	METAL 10K 1% 1/4W		RV962	1-241-631-11	RES, ADJ, CARBON 22K	
<VARIABLE RESISTOR>							
RV901	1-241-631-11	RES, ADJ, CARBON 22K		RV963	1-241-631-11	RES, ADJ, CARBON 22K	
RV902	1-241-631-11	RES, ADJ, CARBON 22K		RV964	1-241-631-11	RES, ADJ, CARBON 22K	
RV903	1-241-631-11	RES, ADJ, CARBON 22K		RV965	1-241-631-11	RES, ADJ, CARBON 22K	
RV904	1-241-631-11	RES, ADJ, CARBON 22K		RV966	1-241-631-11	RES, ADJ, CARBON 22K	
RV905	1-241-631-11	RES, ADJ, CARBON 22K		RV967	1-241-631-11	RES, ADJ, CARBON 22K	
RV906	1-241-631-11	RES, ADJ, CARBON 22K		RV968	1-241-631-11	RES, ADJ, CARBON 22K	
RV907	1-241-631-11	RES, ADJ, CARBON 22K		RV969	1-241-631-11	RES, ADJ, CARBON 22K	
RV908	1-241-631-11	RES, ADJ, CARBON 22K		RV970	1-241-631-11	RES, ADJ, CARBON 22K	
RV909	1-241-631-11	RES, ADJ, CARBON 22K		RV971	1-241-631-11	RES, ADJ, CARBON 22K	
RV910	1-241-631-11	RES, ADJ, CARBON 22K		RV972	1-241-631-11	RES, ADJ, CARBON 22K	
RV911	1-241-627-11	RES, ADJ, CARBON 1K		RV973	1-241-631-11	RES, ADJ, CARBON 22K	
RV912	1-241-631-11	RES, ADJ, CARBON 22K		RV974	1-241-631-11	RES, ADJ, CARBON 22K	
RV913	1-238-023-11	RES, ADJ, CARBON 470K		RV975	1-241-631-11	RES, ADJ, CARBON 22K	
RV914	1-241-630-11	RES, ADJ, CARBON 10K		RV976	1-241-631-11	RES, ADJ, CARBON 22K	
RV915	1-241-630-11	RES, ADJ, CARBON 10K		RV977	1-241-631-11	RES, ADJ, CARBON 22K	
RV916	1-241-631-11	RES, ADJ, CARBON 22K		RV978	1-241-631-11	RES, ADJ, CARBON 22K	
RV917	1-241-631-11	RES, ADJ, CARBON 22K		RV979	1-241-631-11	RES, ADJ, CARBON 22K	
RV918	1-241-631-11	RES, ADJ, CARBON 22K		RV980	1-238-019-11	RES, ADJ, CARBON 47K	
RV919	1-241-631-11	RES, ADJ, CARBON 22K		RV981	1-241-631-11	RES, ADJ, CARBON 22K	
RV920	1-241-631-11	RES, ADJ, CARBON 22K		RV982	1-241-631-11	RES, ADJ, CARBON 22K	
*****							
RV921	1-241-631-11	RES, ADJ, CARBON 22K		RV922	1-241-631-11	RES, ADJ, CARBON 22K	
RV923	1-241-631-11	RES, ADJ, CARBON 22K		RV924	1-241-631-11	RES, ADJ, CARBON 22K	
RV925	1-241-631-11	RES, ADJ, CARBON 22K		RV926	1-241-631-11	RES, ADJ, CARBON 22K	
RV927	1-241-631-11	RES, ADJ, CARBON 22K		RV928	1-241-630-11	RES, ADJ, CARBON 10K	
RV928	1-241-630-11	RES, ADJ, CARBON 10K		RV929	1-241-631-11	RES, ADJ, CARBON 22K	
RV929	1-241-630-11	RES, ADJ, CARBON 10K		RV930	1-241-630-11	RES, ADJ, CARBON 10K	
RV931	1-241-631-11	RES, ADJ, CARBON 22K		RV932	1-241-631-11	RES, ADJ, CARBON 22K	
RV932	1-241-631-11	RES, ADJ, CARBON 22K		RV933	1-241-631-11	RES, ADJ, CARBON 22K	
RV933	1-241-631-11	RES, ADJ, CARBON 22K		RV934	1-241-631-11	RES, ADJ, CARBON 22K	
RV934	1-241-631-11	RES, ADJ, CARBON 22K		RV935	1-241-631-11	RES, ADJ, CARBON 22K	
RV935	1-241-631-11	RES, ADJ, CARBON 22K		RV936	1-241-631-11	RES, ADJ, CARBON 22K	
RV937	1-241-630-11	RES, ADJ, CARBON 10K		RV938	1-241-630-11	RES, ADJ, CARBON 10K	
RV938	1-241-630-11	RES, ADJ, CARBON 10K		RV939	1-241-630-11	RES, ADJ, CARBON 10K	
RV939	1-241-630-11	RES, ADJ, CARBON 10K		RV940	1-241-631-11	RES, ADJ, CARBON 22K	
RV940	1-241-631-11	RES, ADJ, CARBON 22K		RV941	1-241-631-11	RES, ADJ, CARBON 22K	
RV941	1-241-631-11	RES, ADJ, CARBON 22K		RV942	1-241-631-11	RES, ADJ, CARBON 22K	
RV942	1-241-631-11	RES, ADJ, CARBON 22K		RV943	1-241-631-11	RES, ADJ, CARBON 22K	
RV943	1-241-631-11	RES, ADJ, CARBON 22K		RV944	1-241-631-11	RES, ADJ, CARBON 22K	
RV944	1-241-631-11	RES, ADJ, CARBON 22K		RV945	1-241-631-11	RES, ADJ, CARBON 22K	
RV945	1-241-631-11	RES, ADJ, CARBON 22K		RV946	1-241-631-11	RES, ADJ, CARBON 22K	
RV946	1-241-631-11	RES, ADJ, CARBON 22K		RV947	1-241-631-11	RES, ADJ, CARBON 22K	
RV947	1-241-631-11	RES, ADJ, CARBON 22K		RV948	1-241-631-11	RES, ADJ, CARBON 22K	
RV948	1-241-631-11	RES, ADJ, CARBON 22K		RV949	1-241-631-11	RES, ADJ, CARBON 22K	
RV949	1-241-631-11	RES, ADJ, CARBON 22K		RV950	1-241-631-11	RES, ADJ, CARBON 22K	
RV950	1-241-631-11	RES, ADJ, CARBON 22K		RV951	1-241-631-11	RES, ADJ, CARBON 22K	
RV951	1-241-631-11	RES, ADJ, CARBON 22K		RV952	1-241-631-11	RES, ADJ, CARBON 22K	
RV952	1-241-631-11	RES, ADJ, CARBON 22K		RV953	1-241-631-11	RES, ADJ, CARBON 22K	
RV953	1-241-631-11	RES, ADJ, CARBON 22K		RV954	1-241-631-11	RES, ADJ, CARBON 22K	
RV954	1-241-631-11	RES, ADJ, CARBON 22K		RV955	1-241-631-11	RES, ADJ, CARBON 22K	
RV955	1-241-631-11	RES, ADJ, CARBON 22K		RV956	1-241-631-11	RES, ADJ, CARBON 22K	
RV956	1-241-631-11	RES, ADJ, CARBON 22K		RV957	1-241-631-11	RES, ADJ, CARBON 22K	
RV957	1-241-631-11	RES, ADJ, CARBON 22K		RV958	1-241-631-11	RES, ADJ, CARBON 22K	
RV958	1-241-631-11	RES, ADJ, CARBON 22K		RV959	1-241-631-11	RES, ADJ, CARBON 22K	
<CAPACITOR>							
C1745	1-126-101-11	ELECT		C1746	1-126-101-11	ELECT	
C1746	1-126-101-11	ELECT		C1747	1-126-101-11	ELECT	
C1747	1-126-101-11	ELECT		C1748	1-126-101-11	ELECT	
C1748	1-126-101-11	ELECT		C1750	1-124-916-11	ELECT	
C1750	1-124-916-11	ELECT		C1751	1-126-101-11	ELECT	
C1751	1-126-101-11	ELECT		C1752	1-124-916-11	ELECT	
C1752	1-124-916-11	ELECT		C1753	1-124-916-11	ELECT	
C1753	1-124-916-11	ELECT		C1851	1-102-074-00	CERAMIC	
C1851	1-102-074-00	CERAMIC					
<CONNECTOR>							
DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P					
<IC>							
IC1711	8-759-111-69	IC UPC1037HA		IC1712	8-759-602-19	IC M5220L	
IC1712	8-759-602-19	IC M5220L		IC1713	8-759-111-69	IC UPC1037HA	
<RESISTOR>							
R1840	1-215-445-00	METAL		R1841	1-215-433-00	METAL	
R1841	1-215-433-00	METAL		R1842	1-215-465-00	METAL	
R1842	1-215-465-00	METAL		R1843	1-215-421-00	METAL	
R1843	1-215-421-00	METAL		R1844	1-215-455-00	METAL	
R1844	1-215-455-00	METAL					
				R1845	1-215-455-00	METAL	
				R1846	1-215-421-00	METAL	
				R1850	1-215-461-00	METAL	
				R1851	1-215-461-00	METAL	
				R1852	1-215-429-00	METAL	
				R1853	1-215-397-00	METAL	

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**DS** **H1** **H2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
R1854	1-215-429-00	METAL	2.2K 1% 1/4W								
R1855	1-215-397-00	METAL	100 1% 1/4W								
R1940	1-215-445-00	METAL	10K 1% 1/4W								
R1941	1-215-433-00	METAL	3.3K 1% 1/4W								
R1942	1-215-421-00	METAL	1K 1% 1/4W								
R1943	1-215-465-00	METAL	68K 1% 1/4W								
R1944	1-215-421-00	METAL	1K 1% 1/4W								
R1945	1-215-455-00	METAL	27K 1% 1/4W								
R1946	1-215-455-00	METAL	27K 1% 1/4W								
<CAPACITOR>											
RV983	1-241-630-11	RES, ADJ, CARBON	10K	D1651	8-719-908-03	DIODE GP08D					
RV984	1-241-630-11	RES, ADJ, CARBON	10K	D1652	8-719-908-03	DIODE GP08D					
*****											
*1-643-591-11	H1 BOARD		*****	D1653	8-719-108-12	DIODE RD9.1E-W					
4-033-777-01	HOLDER, LED			D1654	8-719-108-12	DIODE RD9.1E-W					
*4-374-987-01	GUIDE, LIGHT			D1655	8-719-108-12	DIODE RD9.1E-W					
4-381-686-01	BRACKET (B), LIGHT GUIDE			D1659	8-719-911-19	DIODE 1SS119					
<VARIABLE RESISTOR>											
C1601	1-124-907-11	ELECT	10MF	20%	50V	D1660	8-719-110-88	DIODE RD39ES-B2			
C1602	1-124-907-11	ELECT	10MF	20%	50V	D1661	8-719-110-88	DIODE RD39ES-B2			
C1603	1-124-907-11	ELECT	10MF	20%	50V	D1662	8-719-110-88	DIODE RD39ES-B2			
C1604	1-124-261-00	ELECT	10MF	20%	50V	D1663	8-719-110-88	DIODE RD39ES-B2			
<CAPACITOR>											
D1601	8-719-812-41	DIODE TLR124		H22	*1-564-519-41	PLUG, CONNECTOR 4P					
D1602	8-719-812-41	DIODE TLR124		H25	*1-564-517-41	PLUG, CONNECTOR 2P					
<DIODE>											
J1651	1-695-817-11	JACK BLOCK, PIN 3P		H26	*1-564-519-11	PLUG, CONNECTOR 4P					
<CONNECTOR>											
H11	*1-564-526-11	PLUG, CONNECTOR 11P		H28	*1-564-518-11	PLUG, CONNECTOR 3P					
H15	*1-564-517-41	PLUG, CONNECTOR 2P		H211	*1-564-517-11	PLUG, CONNECTOR 2P					
<CONNECTOR>											
J1651	1-695-817-11	JACK BLOCK, PIN 3P		H216	*1-564-525-11	PLUG, CONNECTOR 10P					
<TRANSISTOR>											
Q1651	8-729-119-78	TRANSISTOR 2SC2785-HFE		H225	*1-564-518-11	PLUG, CONNECTOR 3P					
Q1652	8-729-119-78	TRANSISTOR 2SC2785-HFE									
Q1653	8-729-119-78	TRANSISTOR 2SC2785-HFE									
<IC>											
IC1601	8-741-148-33	IC SBX1483-59		<RESISTOR>							
<RESISTOR>											
R1601	1-249-430-11	CARBON	12K	5%	1/4W	R1651	1-249-419-11	CARBON	1.5K	5%	1/4W
R1602	1-249-425-11	CARBON	4.7K	5%	1/4W	R1652	1-249-421-11	CARBON	2.2K	5%	1/4W
R1603	1-249-421-11	CARBON	2.2K	5%	1/4W	R1653	1-249-425-11	CARBON	4.7K	5%	1/4W
R1604	1-249-419-11	CARBON	1.5K	5%	1/4W	R1654	1-249-430-11	CARBON	12K	5%	1/4W
R1606	1-249-405-11	CARBON	100	5%	1/4W	R1655	1-249-417-11	CARBON	1K	5%	1/4W
R1607	1-249-405-11	CARBON	100	5%	1/4W	R1656	1-249-417-11	CARBON	1K	5%	1/4W
R1608	1-249-411-11	CARBON	330	5%	1/4W	R1657	1-249-436-11	CARBON	39K	5%	1/4W
R1609	1-249-411-11	CARBON	330	5%	1/4W	R1658	1-249-437-11	CARBON	47K	5%	1/4W
<SWITCH>											
S1601	1-554-303-21	SWITCH, TACTIL		<RELAY>							
S1602	1-554-303-21	SWITCH, TACTIL		RY1651 1-515-586-11 RELAY (DS-2)							
S1603	1-554-303-21	SWITCH, TACTIL		RY1652 1-515-586-11 RELAY (DS-2)							
S1604	1-554-303-21	SWITCH, TACTIL		<SWITCH>							
S1605	1-554-303-21	SWITCH, TACTIL		S1651 1-554-303-21 SWITCH, TACTIL							
S1606A 1-571-731-21 SWITCH, TACTIL (POWER)											
*****											
S1652 1-554-303-21 SWITCH, TACTIL											
S1653 1-554-303-21 SWITCH, TACTIL											
S1654 1-554-303-21 SWITCH, TACTIL											

**H2 ZR ZG ZB N**

REF. NO. PART NO. DESCRIPTION

REMARK

S1655 1-554-303-21 SWITCH, TACTIL

\*\*\*\*\*  
\*A-1390-340-A ZR BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1901 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1902 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1901 1-202-818-00 SOLID 1K 20% 1/2W  
R1902 1-202-818-00 SOLID 1K 20% 1/2W  
R1903 1-249-414-11 CARBON 560 5% 1/4W  
R1904 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZR1 \*1-564-522-11 PLUG, CONNECTOR 7P  
ZR2 \*1-564-518-11 PLUG, CONNECTOR 3P  
ZR18 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*\*\*\*\*  
\*A-1390-346-A ZG BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1911 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1912 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1911 1-202-818-00 SOLID 1K 20% 1/2W  
R1912 1-202-818-00 SOLID 1K 20% 1/2W  
R1913 1-249-414-11 CARBON 560 5% 1/4W  
R1914 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZG2 \*1-564-523-11 PLUG, CONNECTOR 8P  
ZG19 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*\*\*\*\*  
\*A-1390-347-A ZB BOARD, COMPLETE  
\*\*\*\*\*

<CAPACITOR>

C1921 1-162-115-00 CERAMIC 330PF 10% 2KV  
C1922 1-162-115-00 CERAMIC 330PF 10% 2KV

<RESISTOR>

R1921 1-202-818-00 SOLID 1K 20% 1/2W  
R1922 1-202-818-00 SOLID 1K 20% 1/2W  
R1923 1-249-414-11 CARBON 560 5% 1/4W  
R1924 1-249-414-11 CARBON 560 5% 1/4W

<CONNECTOR>

ZB3 \*1-564-524-11 PLUG, CONNECTOR 9P

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

REF. NO. PART NO. DESCRIPTION

REMARK

ZB20 \*1-691-292-11 PIN, CONNECTOR (PC BOARD) 3P

\*\*\*\*\*  
\*A-1390-351-A N BOARD, COMPLETE  
\*\*\*\*\*

4-039-042-01 SPACER, INSULATING  
4-382-854-11 SCREW (M3X10), P, SW (+)  
4-383-023-01 SPACER, MICA

<CAPACITOR>

C801	1-125-489-00	ELECT (BLOCK)	560MF	20%	200V
C802	1-123-024-21	ELECT	33MF	160V	
C803	1-136-729-11	FILM	1.5MF	5%	400V
C804	1-106-383-00	MYLAR	0.047MF	200V	
C805	1-102-030-00	CERAMIC	330PF	10%	500V

C806	1-130-495-00	MYLAR	0.1MF	5%	50V
C807	1-123-875-11	ELECT	10MF	20%	50V
C808	1-126-183-11	ELECT	1000MF	20%	16V
C809	1-124-903-11	ELECT	1MF	20%	50V
C810	1-124-903-11	ELECT	1MF	20%	50V

C811	1-124-902-00	ELECT	0.47MF	20%	50V
C812	1-102-973-00	CERAMIC	100PF	5%	50V
C813	1-102-244-00	CERAMIC	220PF	10%	500V
C814	1-106-391-12	MYLAR	0.1MF	10%	200V
C815	1-106-367-00	MYLAR	0.01MF	10%	200V

C816	1-124-907-11	ELECT	10MF	20%	50V
C817	1-124-119-00	ELECT	330MF	20%	16V
C818	1-102-824-00	CERAMIC	470PF	5%	50V
C819	1-124-907-11	ELECT	10MF	20%	50V
C820	1-124-907-11	ELECT	10MF	20%	50V
C821	1-124-907-11	ELECT	10MF	20%	50V
C822	1-124-034-51	ELECT	33MF	20%	16V
C823	1-124-907-11	ELECT	10MF	20%	50V
C824	1-124-034-51	ELECT	33MF	20%	16V
C825	1-124-034-51	ELECT	33MF	20%	16V

C826	1-124-907-11	ELECT	10MF	20%	50V
C827	1-124-907-11	ELECT	10MF	20%	50V
C828	1-124-907-11	ELECT	10MF	20%	50V
C829	1-124-034-51	ELECT	33MF	20%	16V
C830	1-124-907-11	ELECT	10MF	20%	50V

C831	1-106-220-00	MYLAR	0.1MF	10%	100V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-124-916-11	ELECT	22MF	20%	50V
C834	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C835	1-124-927-11	ELECT	4.7MF	20%	50V

C836	1-130-475-00	MYLAR	0.0022MF	5%	50V
------	--------------	-------	----------	----	-----

C837	1-136-169-00	FILM	0.22MF	5%	50V
------	--------------	------	--------	----	-----

C838	1-130-475-00	MYLAR	0.0022MF	5%	50V
------	--------------	-------	----------	----	-----

C839	1-102-106-00	CERAMIC	100PF	10%	50V
------	--------------	---------	-------	-----	-----

C840	1-136-807-11	FILM	0.018MF	3%	1.6KV
------	--------------	------	---------	----	-------

C841	1-136-729-11	FILM	1.5MF	5%	400V
------	--------------	------	-------	----	------

C842	1-130-471-00	MYLAR	0.001MF	5%	50V
------	--------------	-------	---------	----	-----

C844	1-106-391-12	MYLAR	0.1MF	10%	200V
------	--------------	-------	-------	-----	------

C850	1-136-169-00	FILM	0.22MF	5%	50V
------	--------------	------	--------	----	-----

C851	1-124-907-11	ELECT	10MF	20%	50V
------	--------------	-------	------	-----	-----

C852	1-124-907-11	ELECT	10MF	20%	50V
------	--------------	-------	------	-----	-----

C853	1-106-220-00	MYLAR	0.1MF	10%	100V
------	--------------	-------	-------	-----	------

C854	1-126-329-11	ELECT	470MF	20%	50V
------	--------------	-------	-------	-----	-----

C855	1-124-514-11	ELECT	100MF	20%	50V
------	--------------	-------	-------	-----	-----

C856	1-162-114-00	CERAMIC	0.0047MF	20%	2KV
------	--------------	---------	----------	-----	-----

C858	1-124-119-00	ELECT	330MF	20%	16V
------	--------------	-------	-------	-----	-----

C888	1-124-903-11	ELECT	1MF	20%	50V
------	--------------	-------	-----	-----	-----

N

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;DIODE&gt;</b>											
D801	8-719-928-08	DIODE ERD28-08S		Q801	A 8-729-201-61	TRANSISTOR 2SC2555-1					
D802	8-719-300-80	DIODE RU-1C		Q802	8-729-119-80	TRANSISTOR 2SC2688-LK					
D803	8-719-109-85	DIODE RD5.1ES-B2		Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D804	8-719-911-19	DIODE ISS119		Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D805	8-719-911-19	DIODE ISS119		Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D806	8-719-109-85	DIODE RD5.1ES-B2		Q806	8-729-119-80	TRANSISTOR 2SC2688-LK					
D807	8-719-109-85	DIODE RD5.1ES-B2		Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D808	8-719-911-19	DIODE ISS119		Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D809	8-719-911-19	DIODE ISS119		Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D810	8-719-911-19	DIODE ISS119		Q811	A 8-729-805-07	TRANSISTOR 2SD1887-CA					
D811	8-719-109-85	DIODE RD5.1ES-B2		Q812	8-729-019-88	TRANSISTOR 2SC3675-CB					
D812	8-719-911-19	DIODE ISS119		Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE					
D813	8-719-911-19	DIODE ISS119		Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D814	8-719-911-19	DIODE ISS119		Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE					
D815	8-719-110-36	DIODE RD13ES-B2		Q853	8-729-820-98	TRANSISTOR 2SC4256CB					
D817	8-719-945-80	DIODE ERC06-15S		<b>&lt;RESISTOR&gt;</b>							
D818	8-719-911-19	DIODE ISS119		R801	1-216-378-11	METAL OXIDE	5.6	5%	2W	F	
D820	8-719-911-19	DIODE ISS119		R802	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
D850	8-719-109-71	DIODE RD3.9ES-B1		R803	1-215-926-00	METAL OXIDE	33K	5%	3W	F	
D851	A 8-719-903-09	DIODE V30N		R804	1-249-429-11	CARBON	10K	5%	1/4W		
D852	8-719-911-19	DIODE ISS119		R805	1-249-423-11	CARBON	3.3K	5%	1/4W		
D853	A 8-719-903-09	DIODE V30N		R806	1-249-425-11	CARBON	4.7K	5%	1/4W		
D891	8-719-110-49	DIODE RD18ES-B2		R807	1-249-441-11	CARBON	100K	5%	1/4W		
D892	8-719-110-49	DIODE RD18ES-B2		R808	1-249-417-11	CARBON	1K	5%	1/4W		
<b>&lt;IC&gt;</b>											
IC801	8-759-231-58	IC TA7812S		R809	1-249-417-11	CARBON	1K	5%	1/4W		
IC802	8-759-103-93	IC UPC393C		R810	1-249-441-11	CARBON	100K	5%	1/4W		
IC803	8-759-990-82	IC TL082CP		R811	1-249-421-11	CARBON	2.2K	5%	1/4W		
IC804	8-759-103-93	IC UPC393C		R812	1-249-420-11	CARBON	1.8K	5%	1/4W	F	
IC805	8-759-100-75	IC UPC1394C		R813	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F	
<b>&lt;COIL&gt;</b>											
L801	1-459-862-11	COIL, CHOKE 90UH		R814	1-249-409-11	CARBON	220	5%	1/4W		
L802	1-424-603-11	COIL, CHOKE 1.05MMH		R815	1-249-415-11	CARBON	680	5%	1/4W		
L803	1-459-313-00	COIL WITH CORE (HWC)		R816	1-214-777-00	METAL	100K	1%	1/4W		
L804	1-410-482-31	INDUCTOR 100UH		R817	1-215-471-00	METAL	120K	1%	1/4W		
L805	A 1-424-603-11	COIL, CHOKE 1.05MMH		R818	1-215-471-00	METAL	120K	1%	1/4W		
<b>&lt;CONNECTOR&gt;</b>											
N1	1-506-348-99	PIN, CONNECTOR 3P		R819	1-215-450-00	METAL	16K	1%	1/4W		
N2	*1-564-508-11	PLUG, CONNECTOR 5P		R820	1-215-451-00	METAL	18K	1%	1/4W		
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R821	1-249-423-11	CARBON	3.3K	5%	1/4W		
N4	*1-564-507-11	PLUG, CONNECTOR 4P		R822	1-249-433-11	CARBON	22K	5%	1/4W		
N5	*1-564-508-11	PLUG, CONNECTOR 5P		R823	1-249-429-11	CARBON	10K	5%	1/4W		
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R824	1-215-469-00	METAL	100K	1%	1/4W		
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R825	1-215-453-00	METAL	22K	1%	1/4W		
N8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R826	1-214-962-00	METAL	820K	1%	1/4W		
N9	1-506-348-99	PIN, CONNECTOR 3P		R827	1-214-764-00	METAL	30K	1%	1/4W		
N10	*1-564-511-41	PLUG, CONNECTOR 8P		R828	1-215-455-00	METAL	27K	1%	1/4W		
N20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P		R829	1-215-455-00	METAL	27K	1%	1/4W		
N21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		R830	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R831	1-215-928-11	METAL OXIDE	68K	5%	3W	F	
N851	*1-506-371-00	PIN, CONNECTOR 2P		R832	1-249-417-11	CARBON	1K	5%	1/4W		
N853	*1-506-371-00	PIN, CONNECTOR 2P		R833	1-249-419-11	CARBON	1.5K	5%	1/4W		
NL801	1-519-108-99	LAMP, NEON		R834	1-249-419-11	CARBON	1.5K	5%	1/4W		
<b>&lt;NEON LAMP&gt;</b>											
				R835	1-215-429-00	METAL	2.2K	1%	1/4W		
				R836	1-215-435-00	METAL	3.9K	1%	1/4W		
				R837	1-249-433-11	CARBON	22K	5%	1/4W		
				R838	1-249-435-11	CARBON	33K	5%	1/4W		
				R839	1-249-438-11	CARBON	56K	5%	1/4W		
				R840	1-249-434-11	CARBON	27K	5%	1/4W		
				R841	1-249-429-11	CARBON	10K	5%	1/4W		
				R842	1-249-435-11	CARBON	33K	5%	1/4W		
				R843	1-249-423-11	CARBON	3.3K	5%	1/4W		

**N S**

The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R844	1-249-433-11	CARBON	22K 5% 1/4W				
R845	1-249-435-11	CARBON	33K 5% 1/4W				
R846	1-249-429-11	CARBON	10K 5% 1/4W				
R847	1-214-761-00	METAL	22K 1% 1/4W				
R848	1-215-429-00	METAL	2.2K 1% 1/4W				
R849	1-215-421-00	METAL	1K 1% 1/4W				
R850	1-215-429-00	METAL	2.2K 1% 1/4W				
R851	1-215-404-00	METAL	200 1% 1/4W				
<b>█ R852 ▲</b>	<b>1-215-469-00</b>	<b>METAL</b>	<b>100K 1% 1/4W</b>		<b>*A-1394-421-A</b>	<b>S BOARD, COMPLETE</b>	
R853	1-215-469-00	METAL	100K 1% 1/4W				
R854	1-249-430-11	CARBON	12K 5% 1/4W				
R855	1-215-469-00	METAL	100K 1% 1/4W				
R856	1-249-430-11	CARBON	12K 5% 1/4W				
R857	1-249-433-11	CARBON	22K 5% 1/4W				
R858	1-249-413-11	CARBON	470 5% 1/4W				
R859	1-249-435-11	CARBON	33K 5% 1/4W		C3403	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
R860	1-249-441-11	CARBON	100K 5% 1/4W		C3408	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
R861	1-249-421-11	CARBON	2.2K 5% 1/4W		C3409	1-124-477-11	ELECT 47MF 20% 16V
R862	1-249-434-11	CARBON	27K 5% 1/4W		C3411	1-124-034-51	ELECT 33MF 20% 16V
R863	1-249-431-11	CARBON	15K 5% 1/4W		C3442	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
R864	1-249-423-11	CARBON	3.3K 5% 1/4W		C3446	1-163-129-00	CERAMIC CHIP 330PF 5% 50V
R865	1-249-440-11	CARBON	82K 5% 1/4W		C3447	1-163-117-00	CERAMIC CHIP 100PF 5% 50V
R866	1-249-436-11	CARBON	39K 5% 1/4W		C3448	1-163-023-00	CERAMIC CHIP 0.015MF 10% 50V
R867	1-249-437-11	CARBON	47K 5% 1/4W		C3449	1-164-182-11	CERAMIC CHIP 0.0033MF 10% 50V
R868	1-249-428-11	CARBON	8.2K 5% 1/4W		C3450	1-163-109-00	CERAMIC CHIP 47PF 5% 50V
R869	1-249-429-11	CARBON	10K 5% 1/4W		C3451	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V
R870	1-249-417-11	CARBON	1K 5% 1/4W		C3452	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V
R871	1-249-440-11	CARBON	82K 5% 1/4W		C3453	1-124-477-11	ELECT 47MF 20% 16V
R872	1-249-423-11	CARBON	3.3K 5% 1/4W		C3454	1-126-162-11	ELECT 3.3MF 20% 50V
R873	1-249-441-11	CARBON	100K 5% 1/4W		C3455	1-126-163-11	ELECT 4.7MF 20% 16V
R874	1-249-435-11	CARBON	33K 5% 1/4W		C3456	1-163-129-00	CERAMIC CHIP 330PF 5% 50V
R875	1-249-421-11	CARBON	2.2K 5% 1/4W		C3457	1-163-117-00	CERAMIC CHIP 100PF 5% 50V
R876	1-215-426-00	METAL	1.6K 1% 1/4W		C3459	1-124-477-11	ELECT 47MF 20% 16V
R877	1-249-435-11	CARBON	33K 5% 1/4W		C3460	1-163-099-00	CERAMIC CHIP 18PF 5% 50V
R878	1-249-441-11	CARBON	100K 5% 1/4W		C3461	1-163-099-00	CERAMIC CHIP 18PF 5% 50V
R879	1-216-489-11	METAL OXIDE	27K 5% 3W F		C3507	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
R880	1-249-429-11	CARBON	10K 5% 1/4W		C3508	1-164-005-11	CERAMIC CHIP 0.47MF 25V
R881	1-214-761-00	METAL	22K 1% 1/4W		C3509	1-163-139-00	CERAMIC CHIP 820PF 5% 50V
R882	1-249-433-11	CARBON	22K 5% 1/4W		C3515	1-163-121-00	CERAMIC CHIP 150PF 5% 50V
R883	1-249-417-11	CARBON	1K 5% 1/4W		C3540	1-126-157-11	ELECT 10MF 20% 16V
R884	1-215-894-11	METAL OXIDE	2.2K 5% 2W F				
R885	1-249-438-11	CARBON	56K 5% 1/4W				
R886	1-249-414-11	CARBON	560 5% 1/4W		D3444	8-719-404-46	DIODE MA110
R887	1-215-397-00	METAL	100 1% 1/4W				
R888	1-249-410-11	CARBON	270 5% 1/4W				
R889	1-249-417-11	CARBON	1K 5% 1/4W				
R890	1-249-417-11	CARBON	1K 5% 1/4W				
R891	1-216-489-11	METAL OXIDE	27K 5% 3W F		IC3401	8-759-403-44	IC MN1280-S
R892	1-249-417-11	CARBON	1K 5% 1/4W F		IC3402	8-759-070-42	IC M37201M6-A18FP
R893	1-215-453-00	METAL	22K 1% 1/4W		IC3441	8-759-982-21	IC RCT8L05A
R894	1-249-401-11	CARBON	47 5% 1/4W		IC3442	8-759-084-12	IC LA7945
R895	1-202-731-00	SOLID	10M 20% 1/2W		IC3443	8-759-158-03	IC LCT458A-02
R896	1-260-111-11	CARBON	10K 5% 1/2W				
R897	1-247-881-00	CARBON	120K 5% 1/4W		IC3444	8-759-403-44	IC MN1280-S
R898	1-202-730-00	SOLID	8.2M 20% 1/2W				
R899	1-249-429-11	CARBON	10K 5% 1/4W				
R903	1-247-735-11	SOLID	47 20% 1/2W		L3401	1-408-421-00	INDUCTOR 100UH
R904	1-215-928-11	METAL OXIDE	68K 5% 3W F		L3461	1-408-409-00	INDUCTOR 10UH
R905	1-215-911-11	METAL OXIDE	100 5% 3W F		L3462	1-408-421-00	INDUCTOR 100UH
<b>&lt;SPARK GAP&gt;</b>							
SG801	1-519-422-11	GAP, SPARK					
<b>&lt;TRANSISTOR&gt;</b>							
				Q3441	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q3444	8-729-903-10	TRANSISTOR FMW1	

S U

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
<b>&lt;RESISTOR&gt;</b>									
R3401	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*A-1394-422-A	U BOARD, COMPLETE				
R3402	1-216-049-00	METAL GLAZE	1K 5% 1/10W						
R3403	1-216-073-00	METAL GLAZE	10K 5% 1/10W						
R3404	1-216-033-00	METAL GLAZE	220 5% 1/10W						
R3405	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	<b>&lt;CAPACITOR&gt;</b>					
R3406	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C1004	1-102-125-00	CERAMIC	0.0047MF 10%	50V	
R3407	1-216-033-00	METAL GLAZE	220 5% 1/10W	C1005	1-126-301-11	ELECT	1MF 20%	50V	
R3408	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C1006	1-164-096-11	CERAMIC	0.01MF 20%	50V	
R3409	1-216-033-00	METAL GLAZE	220 5% 1/10W	C1007	1-124-598-11	ELECT	22MF 20%	25V	
R3441	1-216-025-00	METAL GLAZE	100 5% 1/10W	C1008	1-124-598-11	ELECT	22MF 20%	25V	
R3442	1-216-041-00	METAL GLAZE	470 5% 1/10W	C1010	1-124-465-00	ELECT	0.47MF 20%	50V	
R3443	1-216-041-00	METAL GLAZE	470 5% 1/10W	C1011	1-124-465-00	ELECT	0.47MF 20%	50V	
R3444	1-216-077-00	METAL GLAZE	15K 5% 1/10W	C1012	1-124-465-00	ELECT	0.47MF 20%	50V	
R3445	1-216-689-11	METAL GLAZE	39K 5% 1/10W	C1013	1-102-125-00	CERAMIC	0.0047MF 10%	50V	
R3446	1-216-085-00	METAL GLAZE	33K 5% 1/10W	C1014	1-126-163-11	ELECT	4.7MF 20%	50V	
R3449	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1016	1-126-163-11	ELECT	4.7MF 20%	50V	
R3450	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C1018	1-126-301-11	ELECT	1MF 20%	50V	
R3451	1-216-093-00	METAL GLAZE	68K 5% 1/10W	C1020	1-124-242-00	ELECT	33MF 20%	25V	
R3452	1-216-079-00	METAL GLAZE	18K 5% 1/10W	C1021	1-124-465-00	ELECT	0.47MF 20%	50V	
R3453	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	C1022	1-124-242-00	ELECT	33MF 20%	25V	
R3454	1-216-037-00	METAL GLAZE	330 5% 1/10W	C1026	1-102-949-00	CERAMIC	12PF 5%	50V	
R3455	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C1027	1-102-949-00	CERAMIC	12PF 5%	50V	
R3456	1-216-077-00	METAL GLAZE	15K 5% 1/10W	C1028	1-124-242-00	ELECT	33MF 20%	25V	
R3463	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1029	1-124-282-00	ELECT	22MF 20%	16V	
R3464	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1030	1-124-478-11	ELECT	100MF 20%	25V	
R3465	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1031	1-102-963-00	CERAMIC	33PF 5%	50V	
R3472	1-216-091-00	METAL GLAZE	56K 5% 1/10W	C1033	1-124-598-11	ELECT	22MF 20%	25V	
R3473	1-216-025-00	METAL GLAZE	100 5% 1/10W	C1034	1-124-282-00	ELECT	22MF 20%	16V	
R3474	1-216-295-00	METAL GLAZE	0 5% 1/10W	C1036	1-124-282-00	ELECT	22MF 20%	16V	
R3504	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C1037	1-124-282-00	ELECT	22MF 20%	16V	
R3509	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C1039	1-124-478-11	ELECT	100MF 20%	25V	
R3511	1-216-025-00	METAL GLAZE	100 5% 1/10W	C1047	1-124-465-00	ELECT	0.47MF 20%	50V	
R3512	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C1048	1-126-301-11	ELECT	1MF 20%	50V	
R3513	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C1049	1-124-598-11	ELECT	22MF 20%	25V	
R3514	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C1051	1-124-465-00	ELECT	0.47MF 20%	50V	
R3519	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C1055	1-124-589-11	ELECT	47MF 20%	16V	
R3520	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C1056	1-124-499-11	ELECT	1MF 20%	50V	
R3521	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C1057	1-124-768-11	ELECT	4.7MF 20%	50V	
R3525	1-216-295-00	METAL GLAZE	0 5% 1/10W	C1059	1-124-499-11	ELECT	1MF 20%	50V	
R3526	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1060	1-124-499-11	ELECT	1MF 20%	50V	
R3528	1-216-295-00	METAL GLAZE	0 5% 1/10W	C1061	1-124-499-11	ELECT	1MF 20%	50V	
R3529	1-216-295-00	METAL GLAZE	0 5% 1/10W	C1062	1-102-129-00	CERAMIC	0.01MF 10%	50V	
R3530	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1063	1-124-768-11	ELECT	4.7MF 20%	50V	
R3531	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C1066	1-126-101-11	ELECT	100MF 20%	16V	
R3532	1-216-073-00	METAL GLAZE	10K 5% 1/10W	<b>&lt;BLOCK&gt;</b>					
R3535	1-216-033-00	METAL GLAZE	220 5% 1/10W	CM1002	1-466-162-31	BLOCK, COM FILTER (CFB-4)			
R3537	1-216-295-00	METAL GLAZE	0 5% 1/10W	<b>&lt;DIODE&gt;</b>					
R3540	1-216-073-00	METAL GLAZE	10K 5% 1/10W	D1005	8-719-110-36	DIODE RD13ES-B2			
<b>&lt;CONNECTOR&gt;</b>									
S42	*1-568-378-21	PIN, CONNECTOR 3P		D1009	8-719-110-36	DIODE RD13ES-B2			
S43	*1-564-508-11	PLUG, CONNECTOR 5P		D1010	8-719-110-36	DIODE RD13ES-B2			
S45	*1-564-511-71	PLUG, CONNECTOR 8P		D1011	8-719-110-36	DIODE RD13ES-B2			
S46	*1-564-506-11	PLUG, CONNECTOR 3P		D1012	8-719-110-36	DIODE RD13ES-B2			
S47	*1-564-506-11	PLUG, CONNECTOR 3P		D1013	8-719-110-36	DIODE RD13ES-B2			
<b>&lt;CRYSTAL&gt;</b>									
X3401	1-577-082-11	VIBRATOR, CERAMIC		D1017	8-719-110-36	DIODE RD13ES-B2			
X3441	1-577-364-11	VIBRATOR, CERAMIC		D1018	8-719-110-36	DIODE RD13ES-B2			
				D1019	8-719-110-36	DIODE RD13ES-B2			
				D1020	8-719-109-66	DIODE RD3.3ES-B2			
				D1021	8-719-109-66	DIODE RD3.3ES-B2			

**U** **UT**

**UT**

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

• The components identified by **A** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1168	1-126-301-11	ELECT	1MF
C1199	1-102-129-00	CERAMIC	0.01MF
C1200	1-102-129-00	CERAMIC	0.01MF

**<DIODE>**

D1152	8-719-110-36	DIODE RD13ES-B2
D1158	8-719-110-36	DIODE RD13ES-B2
D1159	8-719-110-36	DIODE RD13ES-B2
D1160	8-719-110-36	DIODE RD13ES-B2
D1163	8-719-110-36	DIODE RD13ES-B2
D1164	8-719-110-36	DIODE RD13ES-B2
D1165	8-719-110-36	DIODE RD13ES-B2
D1166	8-719-110-36	DIODE RD13ES-B2
D1167	8-719-110-36	DIODE RD13ES-B2
D1168	8-719-110-36	DIODE RD13ES-B2
D1169	8-719-110-36	DIODE RD13ES-B2
D1170	8-719-110-36	DIODE RD13ES-B2

**<JACK>**

J1001	1-537-187-11	TERMINAL, PUSH (4P)
J1003	1-573-970-11	BLOCK, (S) TERMINAL
J1004	1-695-049-11	BLOCK, (S) TERMINAL
J1005	1-695-054-11	JACK BLOCK, PIN
J1006	1-573-970-11	BLOCK, (S) TERMINAL
J1007	1-573-969-11	JACK BLOCK, PIN
J1008	1-573-969-11	JACK BLOCK, PIN

**<RESISTOR>**

R1153	1-249-403-11	CARBON	68	5%	1/4W
R1164	1-247-895-00	CARBON	470K	5%	1/4W
R1165	1-247-895-00	CARBON	470K	5%	1/4W
R1166	1-247-895-00	CARBON	470K	5%	1/4W
R1167	1-247-895-00	CARBON	470K	5%	1/4W
R1168	1-247-895-00	CARBON	470K	5%	1/4W
R1169	1-249-403-11	CARBON	68	5%	1/4W
R1170	1-249-403-11	CARBON	68	5%	1/4W
R1171	1-247-895-00	CARBON	470K	5%	1/4W
R1172	1-247-895-00	CARBON	470K	5%	1/4W
R1173	1-247-804-11	CARBON	75	5%	1/4W
R1174	1-247-895-00	CARBON	470K	5%	1/4W
R1175	1-247-895-00	CARBON	470K	5%	1/4W
R1176	1-247-804-11	CARBON	75	5%	1/4W
R1178	1-247-895-00	CARBON	470K	5%	1/4W
R1179	1-247-895-00	CARBON	470K	5%	1/4W
R1180	1-247-804-11	CARBON	75	5%	1/4W
R1181	1-247-804-11	CARBON	75	5%	1/4W
R1183	1-247-895-00	CARBON	470K	5%	1/4W
R1184	1-247-895-00	CARBON	470K	5%	1/4W
R1185	1-247-895-00	CARBON	470K	5%	1/4W
R1186	1-247-895-00	CARBON	470K	5%	1/4W
R1188	1-247-804-11	CARBON	75	5%	1/4W
R1191	1-249-425-11	CARBON	4.7K	5%	1/4W
R1192	1-249-425-11	CARBON	4.7K	5%	1/4W
R1193	1-249-425-11	CARBON	4.7K	5%	1/4W
R1194	1-249-425-11	CARBON	4.7K	5%	1/4W
R1196	1-249-426-11	CARBON	5.6K	5%	1/4W

**<SWITCH>**

S1150 1-572-198-11 SWITCH, KEYBOARD

REF. NO. PART NO. DESCRIPTION REMARK

<CONNECTOR>					
UT11	*1-564-519-11	PLUG, CONNECTOR 4P			
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P			
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
UT35	*1-564-518-11	PLUG, CONNECTOR 3P			

\*\*\*\*\*  
**MISCELLANEOUS**  
\*\*\*\*\*

Δ 1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)
Δ 1-451-396-21	DEFLECTION YOKE (Y936PA)
Δ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)
Δ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE
1-544-768-11	SPEAKER (13CM) (COAXIAL)

*1-555-110-00	CABLE, PIN
1-561-306-00	JACK, PIN (F)
1-574-590-31	LEAD ASSY, HIGH-VOLTAGE
Δ 1-696-002-12	CORD, POWER (WITH NOISE FILTER)
V902 Δ A 8-736-631-05	PICTURE TUBE (SD-249 (G))

V903 Δ A 8-736-632-05	PICTURE TUBE (SD-249 (B))
V901 Δ A 8-736-633-05	PICTURE TUBE (SD-249 (R))

Δ R900 Δ	METAL FILM	1/4W
Δ R901 Δ	METAL FILM	1/4W
Δ R902 Δ	METAL FILM	1/4W

\*\*\*\*\*

**ACCESSORIES AND PACKING MATERIALS**

*3-704-356-01	SHEET (STANDARD), PROTECTION
3-756-987-21	MANUAL, INSTRUCTION
3-756-987-31	MANUAL, INSTRUCTION (KP-41EXR96(C))
3-756-987-41	MANUAL, INSTRUCTION (KP-41EXR96(U))
*4-030-895-01	JOINT

*4-036-102-01	CUSHION (UPPER) (ASSY)
*4-036-106-01	INDIVIDUAL CARTON
*4-036-107-01	TRAY
*4-036-108-01	CUSHION (LOWER) (ASSY)
*4-381-155-01	BAG, PROTECTION

**REMOTE COMMANDER**

1-693-114-21	REMOTE COMMANDER (RM-Y112A)
9-902 719-01	COVER (FOR RM-Y112A)
9-998-214-01	COVER, BATTERY (FOR RM-Y112A)

